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* Based on Returns received from the Registrar General

RURAL DISTRICT COUNCIL OF DARTFORD

Report for the years 1964 and 1965 on
certain matters concerning Public Health

August 1967

To THE CHAIRMAN AND MEMBERS OF THE
RURAL DISTRICT COUNCIL OF DARTFORD

Mr. Chairman, Ladies and Gentlemen,

As soon as practicable after the end of each year it is the duty of a medical officer of health to make to the local authority a report for that year on the sanitary circumstances, sanitary administration, vital statistics and other public health matters concerning their district. The report that follows is written in compliance with that duty.

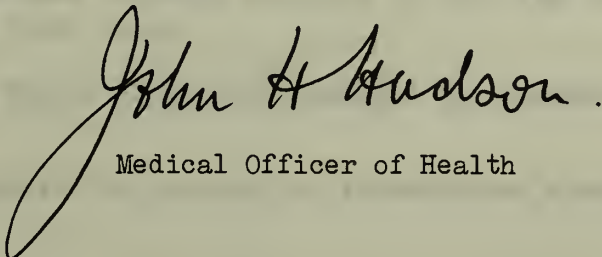
The report covers two years which is the best practice for an authority of this size. The completion of the report is unfortunately late but being a small department some delay in the preparation is inevitable if we are to include what information is available.

The practice of compiling our own tables means that there is some duplication of the information provided by the tables containing the statistics of the Registrar General and I apologise for this duplication. Now that the Registrar General is supplying us with more detailed statistics than hitherto there will be less duplication in future.

The information in this report contains much material provided by officers of other departments and other authorities or organisations. The facts on many environmental matters are the product of work by the Council's Public Health Inspectors. The presentation of the statistical material is a product of the patience of the clerical staff. I thank these colleagues for their co-operation.

On behalf of my colleagues in the public health office and myself I wish to thank the Chairman and Members of the Public Health Committee for their support and interest during the years under review.

I am, Sir, Ladies and Gentlemen,
Your obedient servant,


Medical Officer of Health

1964 - 1965

S U M M A R Y

The population increase continued. About half the increase was due to the balance of migration and about half due to natural increase.

By 1965 the birth rates appeared to have passed their recent peak.

For the six years ending 1965 the trend in the rate of natural increase in the population had been one of diminution.

In each of the four years 1962-65 the numbers of deaths was similar. However, owing to the increase in population and also statistical adjustment the death rate declined.

The trend of deaths from coronary disease was one of increase. An effect on these deaths of extremes of weather may be detectable.

No trend of increase is seen here in the death rate from lung cancer but this is probably a product of chance. The national figures unaffected by chance continue to increase.

One cot death and one measles death occurred in infants.

Our death rate from motor vehicle accidents over a period of five years was similar to that of England and Wales. For accidents in the home our death rate was much less than that for England and Wales.

Over five years the figure for years of life lost here from motor vehicle accidents is five times greater than that for accidents in the home.

The suicide rate for 12 years here remain lower than that of neighbouring areas.

Sickness from influenza was not a feature of the winter of 1964 or 1965.

Vaccination figures for infants were good.

The problem of dust nuisance from cement works is reviewed.

The features of local public health administration are reviewed.

The number of houses built here in 1965 was the greatest since 1961. In 1965 there was a large increase in standard improvement. Twenty-seven houses were demolished or closed.

The number of caravans on licensed sites diminished.

In the drinking water here fluorine remained at only 15% of the value required to prevent tooth decay.

The Council's Public Health Inspectors arranged the connection of 510 houses to the sewer.

Measurements of radioactivity provided by laboratories elsewhere are summarised.

DARTFORD RURAL DISTRICT 1964-65

COMMENTARY

POPULATION Table I & II

The annual growth of recent times continued with natural increase - excess of births over deaths - accounting for one third to one half of the growth and net immigration - excess of incomers over leavers - accounting for one half to two thirds. Although the rate of natural increase remains high there has been a gentle but steady decline since 1960 when the high rate was partly a result of the unique absence of influenza.

The rates of natural increase per 1000 population for 1964 and 1965 were:

	1964	1965
Dartford R.D.	10.9	10.3
Dartford Town	9.4	10.1
Northfleet U.D.	12.5	12.6
Swanscombe U.D.	11.1	8.8
England & Wales	7.0	6.9
Kent A.C.	6.4	6.2

BIRTHS

The trend has been:-

	1959	1960	1961	1962	1963	1964	1965
Births Dartford R.D.	979	1068	1159	1187	1203	1199	1172
Rate adjusted by C.F.	19.2	19.6	20.8	20.6	18.5	18.3	17.5
Rate Eng & Wales	16.5	17.2	17.4	18.0	18.2	18.5	18.1

The abrupt drop of the rate in 1963 is due to the change in C.F., from the absolute figures the decline is seen to be smooth.

The percentage of births at home has been:-

	Births	Nursing Home or hospital	Elsewhere i.e. own home	% Home
1958	941	633	308	32%
1959	979	654	325	33%
1960	1068	706	362	34%
1961	1159	768	391	34%
1962	1187	766	421	35%
1963	1203	766	437	36%
1964	(1199)	1218*	780	36%
1965	(1172)	1164*	769	34%

* Later figures by R.G.

DEATHS Table II

These have been:-

	1959	1960	1961	1962	1963	1964	1965
Deaths Dartford R.D. (R.G.)	483	455	538	560	578	569	563
Rate adjusted by C.F.	10.3	10.1	11.1	11.5	11.2	10.9	10.4
Rate Eng. & Wales	11.6	11.5	12.0	11.9	12.2	11.3	11.5

These R.D. death rates partly reflect changes in the comparability factor. In 1960 the lowest number of deaths is associated with the highest C.F., therefore the rate is not as low as it otherwise would have been.

DEATHS The reason why the number of annual deaths has shown little change in recent years may be that incomers are young and contribute few deaths while those who are older and who have lived for several decades in the district make up an age group of constant size which in recent years has contributed most of the deaths.

Table II
(contd)

Table VI The distribution of deaths by quarters in 1964 and 1965 followed the usual pattern which gives the highest death rate to the first quarter. Up to 65% of non-institutional deaths continued to be the proportion occurring in hospital compared with 48% in England and Wales.

Age,season
and place

The proportion of deaths occurring at ages of 75 or over continues to be around 45% compared with 42% for England and Wales. As our comparability factor suggests that we are a younger population than that of England and Wales one might conjecture from these percentages that the expectation of life of our population is longer than that of England and Wales. (A younger population with a greater percentage of deaths at ripe age) If adding years to life, i.e. postponement of death is an objective of public health, then our 45% should be increased to 100%.

Table VII As usual the chance that any death would be due to circulatory Main Cause diseases was about 1 in 3, due to cancer 1 in 5, due to defective arteries of the brain (vasc.les.nerv.system) 1 in 7, and due to infective lung disease, 1 in 8. Two-thirds to three quarters of deaths due to cancer occurred before the age of 75 years.

Main Cause

The feature of note about our numbers, seasons, places, ages and causes of death is that it takes something outstanding to make a short term change in the pattern. Changes are occurring but in settled times the change from year to year is barely perceptible.

CIRCULATORY Deaths from this main cause from 1962 to 1965 have been: DISEASE 189, 213, 204, 200. The percentages of deaths from this cause have been 34% 37% 36% 35%. The percentages for England and Wales having been 38% 37% 37% and 38%. In 1963, '64 and '65 half the deaths here occurred at 75 years of age or more.

Table VII

Coronary The deaths from this cause have been: Disease

Table IIIA	Year	Number (R.G.)		Rate per thousand population			
		Dartford	R.D. Population	Dartford	R.D. Crude Adjusted	Eng.& Wales	London
	1958	80	47660	1.68	1.78	1.86	1.84
	1959	66	50090	1.33	1.43	1.87	1.89
	1960	101	52380	1.92	2.22	2.01	2.02
	1961	102	53260	1.92	2.11	2.07	2.05
	1962	102	55190	1.85	2.11	2.20	2.26
	1963	128	56320	2.29	2.52	2.29	2.36
	1964	112	57530	1.95	2.15	2.24	2.13
	1965	121	58990	2.05	2.24	2.38	2.27 *
	1958-65	812	431420	1.88	2.06	2.12	2.10

* Greater London

Trend of coronary disease

The yearly increase in the death rate from this cause seen in the rate for England and Wales appears to be reflected in our own rates if one assumes an association of our own rates with extremes of climate. 1959 a year with a superb summer had a low death rate here from coronary disease which preserved susceptibles for an increased death rate in 1960. 1963 with its severe winter gave us a high death rate which by leaving fewer susceptibles was followed by a lower death rate for 1964.

As percentages of deaths from all causes, deaths from coronary disease in years 1962, '63, '64, '65 amounted to 18%, 22%, 20% and 21% respectively. The percentages for England and Wales were 18.0%, 18.5%, 19.6% and 20.4%.

Season

The first quarter of 1962 was an average winter, that of 1963 was a severe winter, the first quarters of 1964 and 1965 were mild.

It is of interest to tabulate our coronary disease deaths by quarters compiled locally.

Year	Quarter	Deaths all ages			Deaths aged 75+		
		M	F	P	M	F	P
1962	1st	24	11	35	8	8	16
	2nd	6	11	17	4	7	11
	3rd	10	7	17	5	5	10
	4th	<u>14</u>	<u>18</u>	<u>32</u>	<u>7</u>	<u>13</u>	<u>20</u>
	Year	<u>54</u>	<u>47</u>	<u>101</u>	<u>24</u>	<u>33</u>	<u>57</u>
1963	1st	23	23	46	9	15	24
	2nd	11	12	23	2	8	10
	3rd	16	7	23	5	5	10
	4th	<u>24</u>	<u>9</u>	<u>33</u>	<u>8</u>	<u>6</u>	<u>14</u>
	Year	<u>74</u>	<u>51</u>	<u>125</u>	<u>24</u>	<u>34</u>	<u>58</u>
1964	1st	18	11	29	6	7	13
	2nd	11	11	22	4	8	12
	3rd	18	8	26	5	3	8
	4th	<u>28</u>	<u>13</u>	<u>41</u>	<u>10</u>	<u>7</u>	<u>17</u>
	Year	<u>75</u>	<u>43</u>	<u>118</u>	<u>25</u>	<u>25</u>	<u>50</u>
1965	1st	13	10	23	4	4	8
	2nd	14	11	25	7	6	13
	3rd	8	11	19	4	6	10
	4th	<u>30</u>	<u>18</u>	<u>48</u>	<u>9</u>	<u>11</u>	<u>20</u>
	Year	<u>65</u>	<u>50</u>	<u>115</u>	<u>24</u>	<u>27</u>	<u>51</u>

Chance

After using the comparability factor to adjust for the age difference of our population the years 1958-65 gave us a death rate from coronary disease of 2.06 which is less than the England and Wales rate of 2.12 during these years. Is the difference of .06 worth attention ? A rate of 2.06 based on a population of 431420 has through chance a 1 in 20 probability of varying by \pm 0.14 which is more than twice the difference under examination. The difference of .06 is thus not worth serious attention.

VASCULAR
LESIONS OF
NERVOUS
SYSTEM

Table IIIA

The deaths from this cause each year 1960-65 have been 57, 65, 77, 57, 65, 71. In 1964 and 1965 the percentages of deaths from this cause in all deaths here were 11% and 13%; For England and Wales 14% and 14%.

CANCER

Table IIIA

In the years 1960-65 deaths from this cause have been 97, 107, 107, 110, 106, 99* (see footnote)
Cancer deaths in 1964 and 1965 comprised 19% and 18% respectively of all deaths. The percentages for England and Wales were 19.5% and 19.4%.

The crude death rates here were per 1000 population 1.83 and 1.68; for England and Wales 2.21 and 2.23.*

Cancer of
the lung

For the years 1958-65 deaths from this cause were:

Year	Number (R.G)*		Rate per thousand population			
	Dartford R.D.	Population	Dartford R.D.	Eng & Wales	London	
			Crude	Adjusted		
1958	11	47660	0.23	0.24	0.44	0.64
1959	26	50090	0.52	0.56	0.46	0.64
1960	23	52380	0.44	0.51	0.48	0.70
1961	17	53260	0.32	0.35	0.49	0.67
1962	28	55190	0.51	0.58	0.51	0.68
1963	26	56320	0.46	0.51	0.52	0.70
1964	26	57530	0.45	0.50	0.54	0.74
1965	<u>25</u>	<u>58990</u>	<u>0.43</u>	<u>0.47</u>	<u>0.55</u>	<u>0.70**</u>
1958-65	182	431420	0.42	0.46	0.50	0.68

** Greater London

In 1964 and 1965 4.6% and 4.4% of all deaths were from this cause. The percentages for England and Wales were 4.7% and 4.8% More than half the deaths occurred at age 65 or over and thus involved productive loss only by diverting nursing resources. Tobacco shortens pensions as well as collecting taxes.

Trend

The England and Wales death rate shows a steady yearly increase so that the rate of 1965 is 125% that of 1958. The rate in this district does not display this trend.

Chance

The difference between our 1958-65 death rate from cancer of the lung and that for England and Wales and that for London is 0.04 and 0.22 respectively. However, in our size of population chance would produce a variation of 0.06 with a probability of 1 in 20 and a variation of 0.09 with a probability of 1 in 100. The difference therefore between our rate and that for England and Wales is not worth serious attention but the difference with the London rate is significant.

*At the South Metropolitan cancer registration rate about 200 cases are diagnosed annually in this district .'. about 100 cases must be successfully cured annually.

35 lung cancer cases are registered annually and .'. about 10 are being cured annually.

Cancer of the uterus

The annual deaths from this cause for years 1958-65 were 4, 5, 1, 5, 4, 3, 3, and 1, total 26. These figures are given to put the risks catered for by cervical screening in perspective. The female deaths from lung cancer in the same years were 2, 5, 1, 4, 6, 4, 3, and 4, total 29. One might ask if it is logical for those females who have the tobacco habit to ask for screening to avoid cancer of the womb when they are wilfully accepting a greater risk of cancer of the lung.

Leukaemia

Annual deaths since 1958 were 2, 4, 1, 2, 3, 5, and 5. Average about 3 .°. crude death rate = about 0.05. Rate for England and Wales 1965 = 0.06. Leukaemia is of interest in regard to ionising radiations.

RESPIRATORY DISEASE

Deaths from respiratory diseases 1958-65 have been 76, 68, 53, 76, 91, 86, 98, and 101. This gives a 1965 crude death rate of 1.7. The England and Wales rate was 1.4 and Greater London 1.5.

DEATHS RELATING TO THE WELFARE OF INFANTS & MOTHERS

There were no maternal deaths and the death rates for infants before and after birth compared favourably with the rates of England and Wales.

The infant deaths in our records were:

		Number	
Age	Cause	1964	1965
1 day	Immaturity	4	2
	Congenital defects	2	1
	Respiratory distress	1	-
	Haemolytic disease	1	1
	Total	8	4
1-6 days	Immaturity	1(twin)	1
	Cerebral haemorrhage	1	1
	Haemolytic disease	1	-
	Atelectasis	-	2
	Total	3	4
7-27 days	Immaturity	1	-
	Bronchopneumonia	1	-
	Congenital defects	2	1
	Pulmonary syndrome (immaturity)	-	1
	Total	4	2
28-364 days	Congenital heart disease	1	-
	Acute gastroenteritis	1	-
	Acute meningo-encephalitis	1	-
	Tumour of lung	-	1
	Measles	-	1
	Pneumonia (Spina befida)	-	1
	Total	3	3

All the above deaths occurred in hospital except the three week old infant who died from bronchopneumonia in 1964; this was a sudden cot death in a good home in December. The death from measles was in March 1965, a five month infant from a good home in a modern house: four months previously a thirteen month old child from the same family had suddenly died from bronchpneumonia.

The 12 deaths in the first day of life in the two years give a mortality of 5 per 1000 births, that for England and Wales in 1964 was 7.1

Stillbirths in our records were:

Still births	ICD Y No.	Cause	Number		1964/5	% of all stillbirths Dartford R.D. Eng & Wales	
			1964	1965			
	30	Chron.dis.mother	-	-	-	0%	3%
	32.2	Haemorrhage	2	1**	5	11%)	3%)
				2)11%)12%
	36.2	Prem.separation placenta	-	-	-	0%)	9%)
	32.3-4	Toxaemias preg.	3	4	7	16%	12%
	34.1	Difficult labour + disproportion	-	-	-	0%	2%
	34.2	Difficult labour + malposition	1	1*	4	9%	3%
	36.0	Cord conditions	2	2	4	9%	8%
	37.0	Birth injuries	-	-	-	0%	2%
	38.0	Anencephalus	3	1	4	9%	11%
	38.1-3	Other malformations nerv.system	-	-	-	0%	6%
	39.2	Erythroblastosis	2	1	3	7%	5%
	39.2	Maceration	2	1	3	7%	6%
			<u>15</u>	<u>15</u>	<u>30</u>		
	36.1	Placenta praevia	1	-			
	36.5	Placental infarct	1+1*	1			
	36.6	Other abnormality placenta + cord	1	1			
	38.5)	Congen.malform.	1	-			
	38.7)	other than CNS or CVS	1	-			
	39.4	Maceration NOS	1**	-			
	39.5	Other ill-def.dis	1	3			
	39.6	Multiple pregnancy	1	1			
	Rest 30-39.6		<u>9</u>	<u>6</u>	<u>15</u>	<u>33%</u>	<u>30%</u>
Total stillbirths			24	21	45	100%	100%

All stillbirths occurred in hospital except * Home ** Elsewhere
(1964 - in ambulance on way to hospital - 1965 in nursing home)

		Motor Vehicle Accidents E810-E835		
DEATHS THROUGH INJURY	Dartford R.D.	Deaths	Deaths all causes	Population
	1961	4	538	53260
	1962	8	560	55190
Table XI	1963	8	578	56320
	1964	15	569	57530
Motor Vehicle Accidents	1965	<u>3</u>	<u>563</u>	<u>58990</u>
		38	2808	281290
	Eng & Wales			
	1965	7515	549379	47763000
	From above:			
		Deaths as percentage of deaths from all causes		Death Rate per 1000 pop.
	Dartford R.D. 1961-65	1.4%		.14
	Eng & Wales 1965	1.4%		.16

Although our death rate from this cause is much the same as that for England and Wales, we must remember that deaths on the roads of this district are transferred out to the district of residence. The Chief Constable's reports show that deaths 1961-65 on roads in this district have been: 13, 16, 9, 18, 15 = 71.

Home Accidents	<u>Home Accidents E870 - E936</u>			
	Dartford R.D.	Deaths	Deaths all causes	Population
	1961	3	538	53260
	1962	5	560	55190
	1963	3	578	56320
	1964	2	569	57530
	1965	2	563	58990
		<u>15</u>	<u>2808</u>	<u>281290</u>
	England and Wales			
	1965	7017	549379	47763000
From above:				
		Deaths as percentage of deaths from all causes		Death Rate per 1000 pop.
	Dartford R.D. 1961-65	0.5%		.05
	Eng.& Wales 1965	1.3%		.15

Thus our death rate from this cause is appreciably less than that for England and Wales. The above figures are not in harmony with the frequent statement that deaths from accidents in the home are more numerous than those from accidents on the road.

When we add up the years of life lost the difference is significance of deaths from motor vehicle accidents is even more apparent. This aspect has been discussed in a previous report.

Loss of life is calculated on an assumption that we are each entitled to hope to live to the age of 85. The details of deaths in this district have been:

<u>Age at death in years</u>														
Motor Vehicle Accidents														
1961	28	43	57											
1962	4/12	11	16	17	50	60	72	75	82					
1963	8	19	21	48	49	59	67	73						
1964	2	13	14	17	29	29	29	41	49	51	66	70	72	82
1965	9	41	52											
Home Accidents														
1961	81	85	93											
1962	18	67	76	88										
1963	3	54	78											
1964	40	78												
1965	78	81												
<u>Years of life lost</u>														
Motor Vehicle Accidents														
1961	57	42	28											= 127
1962	84	74	69	68	35	25	13	10	3					= 381
1963	77	66	64	37	36	36	17	12						= 345
1964	83	72	71	68	56	56	56	44	36	34	19	15	13	3 = 626
1965	76	44	33											= 153
Total years of life lost														<u>1632</u>
Home Accidents														
1961	4													= 4
1962	67	18	9											= 94
1963	82	31	7											= 120
1964	45	7												= 52
1965	7	4												= 11
Total years of life lost														<u>281</u>

Suicides In the 12 years 1954 - 65 suicides have been:-

	Av.Pop.	Deaths	Rate per 100,000
Swanscombe U.D.	9000	6	5.5
Northfleet U.D.	21000	26	10.3
Dartford town	43000*	64*	12.4
Dartford R.D.	48000*	33*	5.7
Eng & Wales	47,763000	5161	10.8

* excluding long stay hospitals

Most of the Rural District's suicides were middle aged. In Dartford Rural District and in Swanscombe a greater proportion than elsewhere of this population group have lived their whole lives in the present district and many work therein. In Swanscombe the social classes are similar and for this age group in the Rural District, social classes although varied, were originally integrated by the village community pattern.

One might conjecture that in this generation and in these two districts, diminished competition and increased neighbourliness might be associated with the lower suicide rate.

COMMUNICABLE DISEASES

Virus
infections

Measles. This appeared at the end of 1964 and early 1965 in the usual biennial pattern. In March 1965 a five month old infant died from the infection. The other death from measles in 1965 was not related to the biennial outbreak but was due to pneumonia due to post-measles encephalitis in an inmate of the hospital for the mentally sub-normal. Infectious hepatitis. In 1965 a few cases came to our notice. Influenza. Although the virus was present in England and Wales in the winters of 1964 and 1965, sickness from influenza was not prevalent here. The graphs for sickness benefit in the winter months showed no departure from smoothness in the curve of weekly claims. Poliomyelitis. No case occurred, the last was in 1959. Vaccination. Acceptances for poliomyelitis were good. The figures for primary vaccination against smallpox were good but there was no re-vaccination of school children.

Bacterial
diseases

Dysentery. An outbreak in 1964 of diarrhoea at one of the rural schools was enquired into by the Council's Public Health Inspectors and specimens were taken from certain members of eight households but no causative organism was revealed. A further sporadic case revealed no organisms. Two further sporadic cases occurred in 1964, one revealed a household infection of Sh.sonnei. Food poisoning. In 1964 there was one sporadic case of S.typhimurium infection. In 1965 there were, four sporadic cases, causative organism unknown, two family outbreaks, cause unknown, a family outbreak due to S.typhimurium, a family outbreak due to S.typhimurium and a sporadic case due to S.orienberg. A long-stay hospital resident was infected with S.typhimurium and bovis morbificans and carried the infection for five months.

Tuberculosis. The number of cases on the tuberculosis register fell. Of those removed from the register by death, the underlying cause was given as bronchitis in three cases and cancer of the lung in two cases. There was one death from tuberculosis of a person who was not registered.

Vaccination. The figures for vaccination against diphtheria, whooping cough and tetanus were good. A death occurred in the long-stay hospital following encephalitis due to triple antigen four years previously.

Worm
diseases

One food poisoning case was due to *Taenia saginata* (beef tape worm) and the person had never been abroad. Another was due to *Taenia solium*, the infestation possibly had been obtained abroad.

Chemical poisons

Lead

Certain plastic toys were submitted for chemical analyses. The County Analyst reported 0.41% lead present but in such firm combination that the toys were not able to yield lead to the gastric juice in harmful amounts.

Apple juice in use for making cider was sent for analysis after we had been informed of a death from lead poisoning elsewhere in a consumer of juice with the same origin. The County Analyst reported 0.7 p.p.m. (maximum allowed for under regulations 0.5 p.p.m.)

Radio-
activity

There is a need for the peacetime problems of radio-activity to be kept in true perspective and for there to be familiarity with the language of the subject which should enable it to be amenable to discussion by the many of us not hitherto concerned with this feature of our environment. Towards this end rather than for the information it contains Appendix VI has been provided.

As a result of test explosions in the Arctic in 1958 and 1961 and both in the Arctic and Pacific in 1962 fall out of radio-active material was in our minds during the period under review.

During these years the Agricultural Research Council Radio-biological Laboratory has kept the position under observation in regard to the food of the country as a whole while in Kent the County Analyst has kept local food supplies under observation. Iodine 131 and strontium 90 are the two radio-active materials which require most attention.

The radio-activity of iodine 131 is only short lived and this isotope is therefore not a great food problem except at the time of the fall out for infants dependent on milk.

The radioactivity of strontium 90 decays only slowly merely half being lost in 30 years. Chemically it is similar to calcium and consequently strontium is deposited in our bones where it is an intimate influence on blood forming tissue. To be on the safe side there should be caution should the diet average more than 130 strontium units over a year.. It will be seen from Appendix VI that the strontium 90 in milk was only about one sixth of this figure and the trend was downwards.

DUST FROM CEMENT WORKS

In a memorandum of 1956 to the Joint Committee for the Abatement of Atmospheric Pollution and in my report for 1958 to this Council this feature of our environment was the subject of a review which included the history of the nuisance, the methods of manufacture of cement, the methods of dust prevention, the nature of the dust and its relation to the health of the local population. The review that now follows concerns the further evolution of the position to the end of 1965.

The Cement Works In 1959 one of the 4 kilns at Bevans Works, Northfleet was modified to the use of ^{the} semi-dry process and a new electrostatic precipitator, after preliminary difficulties, was provided. In 1960 two other new precipitators for two other kilns at Bevans were put into use and also a new 350' chimney. In 1961 the new 400' chimney at Swanscombe Works was completed and in the following year the flue system came into operation to connect all normal kilns to that chimney. In 1962 a new precipitator was provided for the Metropolitan Works across the river and six small kilns on only chain arrestment were closed down. At the time of excessive dust nuisance in 1962 the production from Thames-side was reduced.

In 1963 the 4th kiln at Bevans Works was provided with a precipitator, a second new precipitator was provided for the Metropolitan Works and no kiln on Thames-side was allowed to work without an external means of dust arrestment even for brief periods. At Thames-side by the end of that year £2 million had been spent on dust arrestment since 1945 and the "overall average" dust slip had come down to 0.4 grains per cu.ft. in the emitted flue gases and the target set was 0.2 grains per cu.ft. which we are told is 0.2% of clinker produced. The "overall average" dust slip in 1964 and 1965 was 0.3 grains per cu.ft.

Trouble from clay In 1961 with the exception of Bevans the Thames-side works in Kent had been obtaining estuarine clay from Cliff Marshes, which clay has a high silica and alkali content. As more clay was extracted the more it deteriorated in quality in this respect and the high alkali content resulted in a greater dust burden on the precipitators with the dust failing to dislodge from the collecting electrodes on rapping. Thus arrestment of dust was seriously impaired. The prospect of trouble became known to those concerned with management and administration and in 1961 steps were taken to obtain eocene clay from Essex, which clay has not the difficult properties of the estuarine clay.

Unfortunately before arrangements which included seeking planning permission were completed, weather and precipitator behaviour combined in 1962 to create periods of exceptional dust nuisance on Thames-side. The accompanying public indignation action and remedy are outlined below.

By the end of 1963 all except the Swanscombe Works were on eocene clay and arrangements for these works to obtain this clay subsequently materialised by the end of 1964. Also the districts of the Alkali etc. Works Act Inspectors were reduced in size so that the latter could give greater time to the Thames-side problems.

The reports from the Chief Alkali etc. Works Inspector and from the Industry are informative on these matters.

Adminis-
trative
action

In 1959 an approach was made from the Joint Committee to the Ministry for a public hearing into the nuisance caused by dust from cement works but the Minister was disposed to regard the matter as one of public relations in which the industry should take its part.

In 1960 a deputation from the Joint Committee met their Members of Parliament to discuss the assistance the latter could give towards obtaining information on the efficiency of dust arrestment plant, on new processes of manufacture and on the means by which the Inspectorate were able to carry out their duties.

In 1962 a deputation from the Joint Committee waited on the Minister of Housing and Local Government. The deputation expressed disappointment at the lack of improvement in the dust nuisance position and submitted a detailed statement. The Minister emphasized that he regarded the matter as seriously as did the Joint Committee. He placed importance on the obtaining of eocene clay from Essex.

In November 1962 the Member of Parliament for Dartford raised several questions in the House of Commons about the nuisance.

In 1963 a panel of Town Clerks and Clerks of Councils came into being to report on what legal action could be taken in the event of further serious dust deposit.

In 1963 the Member of Parliament pressed the Ministry of Housing and Local Government for the dust/clinker ratio to be supplied for individual works. The dust emitted as a percentage of clinker produced in a given time is used as an index of the ability of a plant to avoid dust nuisance.

The Minister however would not agree to give the figure for individual works but agreed to make available in the annual reports of the Chief Inspector the annual average figure for all works at Thames-side. When the figures appeared for 1964 and 1965 they were not the ratios but were grains per cu.ft. of flue gas.

In other manufacturing processes we can observe what is emitted from the chimneys but in the cement industry the dust is masked by steam and as the figure for dust content is not revealed, the public are not allowed to compare one works emission with that of another.

Grains per cu.ft. of flue gases, the figure given can, we are told, be easily converted to the figure for the ratio of dust emitted to clinker produced. Dust emitted at 0.2 grains per cu.ft is approximately equivalent to a rate of 0.2% clinker produced. I imagine however

that this only applies where the method of manufacture is uniform and this is not the case at Thames-side where the Northfleet Works as mentioned above, has the semi-dry method of manufacture.

Matters
discussed
elsewhere

The nature of this dust, the future deposits of dust, the features of suspended dust, the relationship of the dust to the health of the community, the difficulties of studying this relationship, the organizations made aware of our dust nuisance, the desirability or otherwise of research are aspects of this feature of our environment which have been discussed in my reports to other local authorities and for reasons of space, it is not expedient to repeat these discussions here.

Standard
deposit
gauge
readings

In spite of their limitations these gauges are the means by which the trend of dust nuisance has been followed by public health authorities in this area. The trend lines from 1954 to 1962 - when calculations were suspended for a review of the formula for assessing dust from cement works - are given in reports to other local authorities and for reasons of space, it is not expedient to repeat them here. Suffice to say that from 1958 to 1962 in figures for dust from cement works a rising trend was detectable.

As weather is influential in determining the amount of dust deposit in the gauges the percentage of dust from cement works as related to dust from other sources might be a guide to the trend of emissions from the works. The trend lines for this from 1959 to 1962 was markedly upward but they were not entirely reliable as dust from other sources is influenced by the fuels used in other industries and these have been subject to change..

In Appendix VII of this report instead of trend lines histograms have been used for the years 1963, '64 '65.

The percentage of dust from cement works to dust from other sources in the combined readings of the most affected gauges - Horns Cross, Northfleet and Swanscombe - is perhaps a concise guide if one remembers the above limitations. A downward trend is detectable.

What do
the public
really
think ?

In the cement production area this Council organized the rehousing of occupants of houses in the immediate vicinity of certain cement works on the grounds that the environment created by dust from cement works was one in which people could not be expected to live. Nevertheless, about a $\frac{1}{4}$ mile away in Swanscombe newly built private enterprise houses were readily sold at about £4000 each. Furthermore, an extensive residential redevelopment area has been provided by Northfleet Urban District Council in the immediate vicinity of the cement works there.

Talking to residents of the cement producing area reveals toleration as well as indignation.

Best
practicable
means

While feeling that this dust nuisance should be kept down to a minimum, the public would not like to see the supply of cement unnecessarily restricted and thus, we can hardly wish for any better standard of dust prevention than the existing one which requires the provision of the best practicable means. This standard has the great virtue that it is adaptable to circumstances - it can be exacting where the residential community is large and cement production high, and can be enhanced as technical knowledge advances and resources improve. However, if adaptability is to be its virtue then interpretation of this standard should be kept under observation.

Any nuisance is tolerated better if it is known that it is not the product of thoughtlessness or lack of consideration of the public interest. Adaptability inherent in the above standard of dust prevention is no doubt used in the interest of the public as well as in the interest of the industry but it is not equitable for the industry to have a monopoly of the relevant facts. The local authorities should also have access to information on how this standard is being interpreted.

Not only is it necessary for the best practicable means to be taken but it is equally necessary for the best practicable means to be seen to be taken. By declining to make certain readings relating to dust emission of individual works available to us as described above, the Minister appears to be content that we should be short of this ideal.

ADMINISTRATION

It is a duty to include in this report observations on sanitary administration so I will discuss here certain features of our local organisation as seen through the eyes of the district medical officer of health.

Possibilities The changes of 1948 removed the management of personal health services from us leaving us with the management of certain matters of environment (i.e. housing etc.), controlling communicable disease, keeping ourselves informed on health affairs and directing informed influence where appropriate. The gap left by the departed personal health services was filled by the M.O.H. taking on appointments with three neighbouring authorities so that the population now served is almost 140,000.

Much is done or prohibited in the name of public health and there is a need for sound assessment of such action in terms of physical health and happiness. Had this need been better recognised the task of informing ourselves on the health affairs of our area would have expanded our work into that of a department of local health information conducting a continuing inquiry into the health affairs of our community and exchanging information with central authorities engaged in related work. Our records which are bare essentials would have been amplified and blended with those of the hospitals general medical services and personal health services.

By now the buying of computer time would be our objective. Knowledge of the pattern of health experience in the community is as necessary to public health administration as is a temperature chart in the treatment of a fever.

Our department of local health information evolved above would have been linked with one local advisory professional committee meeting quarterly who would forward their observations to a joint committee of the local councils. It must be remembered that influencing the health of the present and future generations is a task different in nature from that which benefited the generations of the past.

These possibilities are admittedly fanciful but it is the stodginess of district health administration that makes them so.

Realities

Amenity and local representation seem to be regarded by Councils as being as important as public health and the four public health committees of the four local authorities remained separate. Any proposals for merging public health committees by a joint committee would have been unrealistic. The standard of discussion remained more that of the intelligent housewife rather than that of a professional committee. There was no lack of goodwill and four offices and four desks essential for separate administration were made available to the M.O.H. - the pity was that this generous quadruplication provided an obstacle to work rather than an asset. In addition to four public health committees, five hospital committees and two safety committees invited attendance and it was a duty to accept. Meetings one to six monthly. During certain vital periods in the evolution of certain voluntary organisations, membership to their committees was also accepted and in addition there were the committees of local professional organisations. On these committees biological public health is a fringe subject and the M.O.H. has to sit through other discussions before his subject is reached.

Thus much chair-borne day dreaming has been and is incurred by the M.O.H. in the duty of attempting to inform himself and others on the health affairs of this district.

Joint adhoc committees may be thought to be the answer to the common interests of small local authorities and one was formed for matters concerning atmospheric pollution but the chairmanship changes each year, the officers are honorary and the committee has been little more than a public relations and pressure group.

Should a proposal which could contribute to human health arise in this district it would find difficulty in obtaining expression through our local public health administration.

With the loss of the personal health services, a source of information on child health was denied us. Some circulars on health matters of local concern now by-pass us (e.g. anthrax 1965). The medical officer now has no direct bond with any other technical officer apart from clerical assistants of whom none is fully engaged on his work.

For information relating to the health of the people we are dependent on other departments and other public bodies, and the information is not always complete - witness the gaps in the vaccination figures of this report. Unanalysed and irrelevant data may satisfy the Ministry and the Councils for an annual report, and the penalty of being informative with the inevitable delay is the receipt of innuendos from above. The Registrar General supplies essential vital statistics but because the population of the individual local authorities here is small, the information provided is more limited in detail than that given elsewhere. The regulations giving us information on communicable disease are obsolete. What is informative is the weekly summary of the Public Health Laboratory Service but this is not officially available.

No deputy is designated so when the M.O.H. is not at hand the law cannot be fully asserted for the control of communicable disease. As the local authorities are small, extraneous duties such as medical examinations of candidates and of employees has to be mixed with public health work and in the main has to be done when convenient to the candidate or committee. This can squander time.

Improvements
attempted

Public cleansing and refuse disposal were a time and money consuming portion of the work of the public health offices of three authorities and in two, one of which is this Rural District, although the transfer was at first opposed, the work was finally off-loaded. Managing waste material can be an engaging job but its routine belongs to the sphere of amenity.

Memoranda on administrative matters were submitted to three authorities with varying effect. In this Rural District the pattern we have evolved gives each member of the department so far as practicable, full professional scope and within the administrative limitations, this includes the M.O.H. In certain amenity matters I am by-passed at my request.

When this local authority had its offices $\frac{1}{4}$ mile from the neighbouring authority, a proposal was made for the two public health offices to be merged - both councils declined.

For the one joint committee a technical panel was formed but it lasted only three meetings.

In regard to the personal health services some sort of decentralisation was hoped for as in other counties but this appeared not even to get consideration. In regard to Food and Drugs duties, it would have been expedient for all work to be done by this Council instead of part by County and part by district so off we went in deputation to County Hall - the cause was lost before we started. Health education gets little attention in this district and the County received proposals to facilitate this district doing this work for which the County get a grant - another lost cause.

To remove obsolescence from the law on notifiable disease the County and the Local Government Associations were approached but no support was received. Finally a professional organisation was approached which submitted a memorandum to the Ministry. That was a dozen years ago - there has been no response yet.

Two attempts have been made to get the duty to provide County Hall with health information made reciprocal, both attempts were unsuccessful. The proposals of the County to limit the information on vaccination were formally opposed and although the reasoning was appreciated by the Ministry, the County's proposals went into effect.

The weekly summary of the Public Health Laboratory Service which is not available to medical officers of health but is most useful for their work, we get from "under the counter".

The short comings of the details provided by the Registrar General we have remedied by instituting our own classification of deaths and our own punch card system. It is time-consuming.

In regard to medical examinations, much time has been saved by the use of medical questionnaires and in many cases not asking to see the candidate. So far this practice has not let us down but it is widely different from that followed elsewhere.

In regard to there being no designated deputy, there was an opportunity to so designate a neighbouring colleague but the neighbouring councils would not agree.

Conclusions

The administrative set-up here is unusual. There are only eleven like it in England and Wales and the nature of the appointment is different from that of any other officers locally. There being few others with like problems, the scope for support in effecting a remedy is limited. Unless we have an outbreak of serious disease in which cause and effect are apparent - and the chances of this are remote - remedy must await the tide of events in general administrative reorganisation.

Public health is a misfit in the responsibilities of small local authorities whereas amenity is eminently their concern. Clues for future reorganisation may be found in the following:

- 1) Work to improve amenity be separated from work to improve public health;
- 2) Public Health work be removed from Local Government;
- 3) The executive side of public health to be the province of the National Health Service;
- 4) Area Health Boards to be created for the management of all local health services;
- 5) The intelligence necessary for the local management of these services be provided by a Local Office of Health Information;
- 6) The Registrar General be responsible for the provision of this latter local office;
- 7) A committee of representatives of professions linked with public health be served by the Local Office of Health Information;
- 8) This committee be advisory to all local bodies concerned with public health.

CERTAIN ENVIRONMENTAL MATTERS

Discussion on certain aspects of our environment, e.g. matters concerning housing, food, noise, caravan dwellers and the local disposal of London refuse have been postponed until the next report.

DARTFORD RURAL DISTRICT

TABLE I - SOCIAL CONDITIONS

	1964	1965
Area (acres)	34,038	34,038
Mid-year home population (R.G.'s estimate)	57,530	58,990
Number of domestic and agricultural dwelling houses assessed to rates 31st March	16,603	17,057
Rateable value 31st March	£2,072,467	£2,124,800
Sum represented by 1d rate 31st March	£8,404	£8,501

In the last eight years the area comparability factor for births (governed by the proportion of women aged 18-44) and for deaths (governed by the proportion of all age groups) have been as follows:

Year	1958	1959	1960	1961	1962	1963	1964	1965
Births	0.98	0.98	0.96	0.96	0.96	0.88	0.88	0.88
Deaths	1.06	1.07	1.16	1.10	1.14	1.10	1.10	1.09

When local crude birth and death rates are multiplied by the appropriate area comparability factor they are comparable with the crude rate for England and Wales or with the corresponding adjusted rate for any other area.

POPULATION: Increases in the population are due to natural causes, i.e. excess of births over deaths and immigration, both being related to new houses built.

	1958	1959	1960	1961	1962	1963	1964	1965
Est. mid-year home population	47,660	50,090	52,380	53,260	55,190	56,320	57,530	58,990
Increase on previous year	2,330	2,430	2,290	880	1,930	1,130	1,210	1,460
Natural increase	448	496	613	621	627	625	630	609
Immigration	1,882	1,934	1,677	254	1,303	505	580	851
Houses built	742	725	561	667	406	409	471	722

Illegitimate birth rate per thousand live births:

	1962	1963	1964	1965
Dartford Rural Dis.	29	30	37	44
Dartford Borough	40	46	55	50
Eng. & Wales	66	69	72	77

Social conditions for the year may be illustrated by:

Cases dealt with by the N.S.P.C.C.

	1963	1964	1965
Neglect	24	14	21
Assault/ill treatment	3	6	2
Beyond control	1	1	1
Advice/aid sought	3	9	9
Abandoned	-	1	1
Moral danger	-	-	1

Unemployed (combined figures for Rural District and Dartford Borough)

	1963	1964	1965
Men	215	191	140
Women	60	40	32

TABLE I - (continued) Dartford Rural District

POPULATION OF YOUNG PERSONS. A guide is necessary to the young population in the district in order that we may form an idea from vaccinations done of the proportion who have been given immunity to certain diseases. A rough estimate can be made from the births which have occurred in the district in the past. This assumes a stable population and does not take into account deaths after one year of age or the balance of those coming into the district over those leaving.

Age Dec. 31st 1964	Births Year 1965	Number	Infants deaths	Approx. Population Age Dec.1964	Infants Surviving to 1 year	Approx. Population Age Dec.1965
-1	0	1965	1172	13	1159	
0	1	1964	1199	20	1179	
1	2	1963	1203	20	1183	
2	3	1962	1187	19	1168	0 - 4 yrs
3	4	1961	1159	17	1142	= 5717
4	5	1960	1068	23	1045	
5	6	1959	979	11	968	
6	7	1958	941	21	920	
7	8	1957	848	21	827	5 - 11 yrs
8	9	1956	770	12	758	= 5189
9	10	1955	627	17	610	
10	11	1954	586	12	574	5 - 15 yrs
11	12	1953	539	7	532	= 7314
12	13	1952	514	17	497	
13	14	1951	576	13	563	
14	15	1950	545	17	528	12 - 15 yrs
15	16	1949	565	28	537	= 2120
16	17	1948	631	19	612	
17	18	1947	752	25	752	16 - 18 yrs
18	19	1946	721	33	688	= 1901
19	20	1945	529	19	510	

Population of children (i) aged 5 - 11 years

Dec.31st.	Birth years	Est.population
1961	1950- 56	4062
1962	1951- 57	4361
1963	1952- 58	4718
1964	1953- 59	5189
1965	1954- 60	5660

(ii) aged 5 - 14 years

1965	1951- 60	7294
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NATURAL INCREASE

	Births	Deaths	Natural increase	Population	Rate of natural increase per 1000 population
1954	586	416	170	39,110	4.4
1955	627	405	222	41,290	5.4
1956	770	457	313	43,940	7.3
1957	848	486	362	45,810	8.0
1958	941	493	448	47,660	9.4
1959	979	483	496	50,090	9.9
1960	1068	455	613	52,380	11.7
1961	1159	538	621	53,260	11.6
1962	1187	560	627	55,190	11.3
1963	1203	578	625	56,320	11.0
1964	1199	569	630	57,530	10.9
1965	1172	563	609	58,990	10.3

TABLE II - BIRTHS & DEATHS

Dartford R.D.

	1964			1965		
	M	F	Persons	M	F	Persons
Live Births:						
Legitimate	599	556	1155	602	518	1120
Illegitimate	<u>16</u>	<u>28</u>	<u>44</u>	<u>29</u>	<u>23</u>	<u>52</u>
	<u>615</u>	<u>584</u>	<u>1199</u>	<u>631</u>	<u>541</u>	<u>1172</u>
Deaths from all causes:	314	255	569	291	272	563
Deaths from pregnancy, childbirth, abortion	-	-	-	-	-	-
Still Births:						
Legitimate	13	11	24	13	8	21
Illegitimate	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
	<u>13</u>	<u>11</u>	<u>24</u>	<u>13</u>	<u>8</u>	<u>21</u>
Infant deaths by age:						
0 - 6 days						
Legitimate	9	4	13	6	2	8
Illegitimate	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
	<u>9</u>	<u>4</u>	<u>13</u>	<u>6</u>	<u>2</u>	<u>8</u>
7 - 27 days						
Legitimate	4	-	4	1	1	2
Illegitimate	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
	<u>4</u>	<u>-</u>	<u>4</u>	<u>1</u>	<u>1</u>	<u>2</u>
28 to 364 days						
Legitimate	3	-	3	-	3	3
Illegitimate	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
	<u>3</u>	<u>-</u>	<u>3</u>	<u>-</u>	<u>3</u>	<u>3</u>
Total under 1 year:						
Legitimate	16	4	20	7	6	13
Illegitimate	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
	<u>16</u>	<u>4</u>	<u>20</u>	<u>7</u>	<u>6</u>	<u>13</u>

Rates per 1,000 Home Population

		1964	1965
Crude live birth rate	Dartford R.D.	20.8	19.9
" " " "	adjusted by comparability factor	18.3	17.5
" " " "	England & Wales	18.5	18.1
Crude death rate	Dartford R.D.	9.9	9.6
" " " "	adjusted by comparability factor	10.9	10.4
" " " "	England and Wales	11.3	11.5

Rates per 1,000 Live and Still Births

Maternal death rate	Dartford R.D.	-	-
" " " "	England and Wales	0.25	0.25
Still birth rate	Dartford R.D.	21.2	17.6
" " " "	England and Wales	16.3	15.8
Perinatal death rate	Dartford R.D.	31.8	24.3
(s.b.& deaths 0-6 days)			
" " " "	England and Wales	28.2	26.9

Rates per 1,000 Live Births

Neonatal death rate	Dartford R.D.	14.2	8.5
(deaths 0-27 days)	England and Wales	13.8	13.0
Infant death rate	Dartford R.D.	16.7	11.1
(deaths 0-364 days)	England and Wales	19.9	19.0
Early neonatal death rate	Dartford R.D.	10.9	6.8
(deaths 0-6 days)	England & Wales	12.0	11.3

TABLE IIIA CAUSES OF DEATH ACCORDING TO SEX

Registrar General's Return

	1964			Dartford R.D.			1965
	M	F	Persons	M	F	Persons	
All causes	314	255	569	291	272	563	
Tuberculosis, respiratory	4	-	4	-	4	4	
Tuberculosis, other	1	-	1	-	-	-	
Syphilitic disease	-	-	-	1	-	1	
Diphtheria	-	-	-	-	-	-	
Whooping cough	-	-	-	-	-	-	
Meningococcal infections	-	-	-	-	-	-	
Acute poliomyelitis	-	-	-	-	-	-	
Measles	-	-	-	-	2	2	
Other infective and parasitic disease	1	-	1	2	-	2	
Malignant neoplasm, stomach	5	8	13)	7	4	11)	
Malignant neoplasm, lung bronchus	23	3	26)	21	4	25)	
Malignant neoplasm, breast	-	14	14)	-	9	9)	
Malignant neoplasm, uterus	-	3	3)	-	1	1)	
Other malignant and lymphatic neoplasms	23	22	45)	26	22	48)	99
Leukaemia, aleukaemia	2	3	5)	2	3	5)	
Diabetes	-	-	-	2	1	3	
Vascular lesions of nervous system	23	42	65	29	42	71	
Coronary disease, angina	72	40	112)	68	53	121)	
Hypertension with heart disease	2	4	6)	3	3	6)	
Other heart disease	17	25	42)	26	19	45)	200
Other circulatory disease	29	15	44)	10	18	28)	
Influenza	-	1	1)	1	-	1)	
Pneumonia	25	28	53)	27	30	57)	101
Bronchitis	28	9	37)	22	16	38)	
Other diseases of the respiratory system	7	-	7)	2	3	5)	
Ulcer of stomach and duodenum	4	1	5	2	2	4	
Gastritis, enteritis and diarrhoea	1	1	2	-	3	3	
Nephritis and nephrosis	1	3	4	-	3	3	
Hyperplasia of prostate	-	-	-	1	-	1	
Pregnancy, childbirth, abortion	-	-	-	-	-	-	
Congenital malformations	4	2	6	4	2	6	
Other defined and ill-defined diseases	25	25	50	27	23	50	
Motor vehicle accidents	11	4	15	3	-	3	
All other accidents	5	1	6	2	3	5	
Suicide	1	1	2	3	1	4	
Homicide and operations of war	-	-	-	-	1	1	

TABLE IIIB - CAUSES OF DEATH ACCORDING TO AGE

Registrar General's Return

1964

Dartford R.D.

Persons	All ages	Under 4 wks	4 wks - 11 mths	1 - 4 yrs	5 - 14 yrs	15 - 24 yrs	25 - 34 yrs	35 - 44 yrs	45 - 54 yrs	55 - 64 yrs	65 - 74 yrs	75 +	Main causes
All causes	569	17	3	4	4	4	7	15	44	77	137	257	
Tuberculosis, respiratory	4	-	-	-	-	-	-	1	-	-	2	1	
Tuberculosis, other	1	-	-	-	-	-	-	-	-	-	1	-	
Syphilitic disease	-	-	-	-	-	-	-	-	-	-	-	-	
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	
Whooping cough	-	-	-	-	-	-	-	-	-	-	-	-	
Meningococcal infections	-	-	-	-	-	-	-	-	-	-	-	-	
Acute poliomyelitis	-	-	-	-	-	-	-	-	-	-	-	-	
Measles	-	-	-	-	-	-	-	-	-	-	-	-	
Other infective and parasitic diseases	1	-	1	-	-	-	-	-	-	-	-	-	
Malignant neoplasm, stomach	13	-	-	-	-	-	-	-	-	3	2	8	106
Malignant neoplasm, lung bronchus	26	-	-	-	-	-	-	1	2	7	10	6	
Malignant neoplasm, breast	14	-	-	-	-	-	-	2	3	3	3	3	
Malignant neoplasm, uterus	3	-	-	-	-	-	-	1	-	-	1	1	
Other malignant and lymphatic neoplasms	45	-	-	-	-	-	2	-	8	8	13	14	
Leukaemia, aleukaemia	5	-	-	-	-	-	-	-	1	1	2	1	
Diabetes	-	-	-	-	-	-	-	-	-	-	-	-	
Vascular lesions of nervous system	65	-	-	-	-	-	-	1	1	5	17	41	65
Coronary disease, angina	112	-	-	-	-	-	-	3	9	24	29	47	204
Hypertension with heart disease	6	-	-	-	-	-	-	-	1	-	2	3	
Other heart disease	42	-	-	-	-	-	-	1	1	3	5	32	
Other circulatory disease	44	-	-	-	-	-	-	-	1	8	16	19	
Influenza	1	-	-	-	-	-	-	-	-	-	-	1	98
Pneumonia	53	2	-	1	-	-	-	-	2	4	14	30	
Bronchitis	37	-	-	-	-	-	-	-	3	1	10	23	
Other diseases of the respiratory system	7	-	-	-	-	-	1	1	1	1	-	3	
Ulcer of stomach and duodenum	5	-	-	-	-	-	-	1	-	1	2	1	
Gastritis, enteritis and diarrhoea	2	-	1	-	-	-	-	-	-	-	-	1	
Nephritis and nephrosis	4	-	-	-	-	-	-	-	1	1	1	1	
Hyperplasia of prostate	-	-	-	-	-	-	-	-	-	-	-	-	
Pregnancy, childbirth and abortion	-	-	-	-	-	-	-	-	-	-	-	-	
Congenital malformations	6	3	1	-	-	1	-	-	1	-	-	-	
Other defined and ill-defined diseases	50	12	-	2	2	2	1	2	3	5	3	18	
Motor vehicle accidents	15	-	-	1	2	1	3	1	3	-	3	1	
All other accidents	6	-	-	-	-	-	-	-	2	1	1	2	
Suicide	2	-	-	-	-	-	-	-	1	1	-	-	
Homicide and operations of war	-	-	-	-	-	-	-	-	-	-	-	-	

TABLE IIIB CAUSES OF DEATH ACCORDING TO AGE

Registrar General's Return

1965 Dartford R.D.

Persons	All ages	mths											Main causes
		under 4 wks	4 wks - 11 mths	1 - 4 yrs	5 - 14 yrs	15 - 24 yrs	25 - 34 yrs	35 - 44 yrs	45 - 54 yrs	55 - 64 yrs	65 - 74 yrs	75 +	
All causes	563	10	3	4	6	2	4	14	41	94	130	255	
Tuberculosis, respiratory	4	-	-	-	-	-	-	-	-	3	-	1	
Tuberculosis, other	-	-	-	-	-	-	-	-	-	-	-	-	
Syphilitic disease	1	-	-	-	-	-	-	-	-	-	-	1	
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	
Whooping cough	-	-	-	-	-	-	-	-	-	-	-	-	
Meningococcal infections	-	-	-	-	-	-	-	-	-	-	-	-	
Acute poliomyelitis	-	-	-	-	-	-	-	-	-	-	-	-	
Measles	2	-	1	-	-	-	1	-	-	-	-	-	
Other infective and parasitic disease	2	-	1	-	-	-	-	-	-	1	-	-	
Malignant neoplasm, stomach	11	-	-	-	-	-	-	-	-	2	6	3)	
Malignant neoplasm, lung bronchus	25	-	-	-	-	-	-	-	5	9	8	3)	
Malignant neoplasm, breast	9	-	-	-	-	-	-	-	2	5	-	2)	
Malignant neoplasm, uterus	1	-	-	-	-	-	-	-	1	-	-	-	
Other malignant and lymphatic neoplasms	48	-	-	-	-	1	-	3	5	7	13	19)	99
Leukaemia, aleukaemia	5	-	-	-	-	-	-	1	-	3	1	-	
Diabetes	3	-	-	-	-	-	-	1	-	-	1	1	
Vascular lesions of nervous system	71	-	-	-	-	1	-	1	2	12	16	39)	71
Coronary disease, angina	121	-	-	-	-	-	-	1	9	18	40	53)	
Hypertension with heart disease	6	-	-	-	-	-	-	-	-	1	1	4)	
Other heart disease	45	-	-	-	-	-	-	1	4	6	9	25)	200
Other circulatory disease	28	-	-	-	1	-	-	1	2	4	1	19)	
Influenza	1	-	-	-	-	-	-	-	-	-	-	1)	
Pneumonia	57	-	-	2	1	-	-	-	3	8	7	36)	101
Bronchitis	38	-	-	-	-	-	-	-	-	7	13	18)	
Other diseases of the respiratory system	5	-	-	-	-	-	-	-	1	1	1	2)	
Ulcer of stomach and duodenum	4	-	-	-	-	-	-	-	-	-	-	4	
Gastritis, enteritis and diarrhoea	3	-	-	-	-	-	-	1	-	-	1	1	
Nephritis and nephrosis	3	-	-	-	-	-	-	1	-	-	1	1	
Hyperplasia of prostate	1	-	-	-	-	-	-	-	-	1	-	-	
Pregnancy, childbirth and abortion	-	-	-	-	-	-	-	-	-	-	-	-	
Congenital malformations	6	2	-	-	1	-	-	1	-	1	1	-	
Other defined and ill-defined diseases	50	8	1	1	1	1	1	2	3	5	8	19	
Motor vehicle accidents	3	-	-	-	1	-	-	1	1	-	-	-	
All other accidents	5	-	-	1	-	-	-	-	1	-	1	2	
Suicide	4	-	-	-	-	-	1	-	1	-	2	-	
Homicide and operations of war	1	-	-	-	-	-	1	-	-	-	-	-	

TABLE IIIC - CAUSES OF DEATH ACCORDING TO AGE AND SEX

Registrar General's Return

1964 Dartford R.D.

	All ages	- 27 days	4 - wks	1 - 4 yrs	5 - 14 yrs	15 - 24 yrs	25 - 34 yrs	35 - 44 yrs	45 - 54 yrs	55 - 64 yrs	65 - 74 yrs	75 +	Main causes
<u>Males</u>													
All causes	314	13	3	2	3	2	6	13	26	54	80	112	
Tuberculosis, respiratory	4	-	-	-	-	-	-	1	-	-	2	1	
Tuberculosis, other	1	-	-	-	-	-	-	-	-	-	1	-	
Other infective and parasitic diseases	1	-	1	-	-	-	-	-	-	-	-	-	
Malignant neoplasm, stomach	5	-	-	-	-	-	-	-	-	2	-	3)	
Malignant neoplasm, lung bronchus	23	-	-	-	-	-	-	1	2	5	9	6)	
Other malignant and lymphatic neoplasms	23	-	-	-	-	-	2	-	3	5	7	6)	53
Leukaemia, aleukaemia	2	-	-	-	-	-	-	-	-	1	1	-)	
Vascular lesions of nervous system	23	-	-	-	-	-	1	-	-	-	7	15)	23
Coronary disease, angina	72	-	-	-	-	-	-	3	8	21	17	23)	
Hypertension with heart disease	2	-	-	-	-	-	-	-	1	-	-	1)	
Other heart disease	17	-	-	-	-	-	-	1	1	2	3	10)	120
Other circulatory disease	29	-	-	-	-	-	-	-	1	7	13	8)	
Pneumonia	25	2	-	-	-	-	-	-	-	2	8	13)	
Bronchitis	28	-	-	-	-	-	-	-	3	1	8	16)	60
Other diseases of resp. system	7	-	-	-	-	-	1	1	1	1	-	3)	
Ulcer of stomach and duodenum	4	-	-	-	-	-	-	1	-	1	1	1	
Gastritis, enteritis and diarrhoea	1	-	1	-	-	-	-	-	-	-	-	-	
Nephritis and nephrosis	1	-	-	-	-	-	-	1	-	-	-	-	
Congenital malformations	4	2	1	-	-	-	-	-	1	-	-	-	
Other def. and ill-def. diseases	25	9	-	1	1	1	-	1	3	5	2	3	
Motor vehicle accidents	11	-	-	1	2	1	2	1	2	-	1	1	
All other accidents	5	-	-	-	-	-	-	2	-	1	-	2	
Suicide	1	-	-	-	-	-	-	-	-	1	-	-	
<u>Females</u>													
All causes	255	4	-	2	1	1	3	5	14	23	57	145	
Malignant neoplasm, stomach	8	-	-	-	-	-	-	-	-	1	2	5)	
Malignant neoplasm, lung bronchus	3	-	-	-	-	-	-	-	-	2	1	-)	
Malignant neoplasm, breast	14	-	-	-	-	-	-	2	3	3	3	3)	
Malignant neoplasm, uterus	3	-	-	-	-	-	-	1	-	-	1	1)	53
Other malignant and lymphatic neoplasms	22	-	-	-	-	-	-	-	5	3	6	8)	
Leukaemia, aleukaemia	3	-	-	-	-	-	-	-	1	-	1	1)	
Vascular lesions of nervous system	42	-	-	-	-	-	-	1	-	5	10	26)	42
Coronary disease, angina	40	-	-	-	-	-	-	-	1	3	12	24)	
Hypertension with heart disease	4	-	-	-	-	-	-	-	-	-	2	2)	
Other heart disease	25	-	-	-	-	-	-	-	-	1	2	22)	84
Other circulatory disease	15	-	-	-	-	-	-	-	-	1	3	11)	
Influenza	1	-	-	-	-	-	-	-	-	-	-	1)	
Pneumonia	28	-	-	1	-	-	-	-	2	2	6	17)	38
Bronchitis	9	-	-	-	-	-	-	-	-	-	2	7)	
Ulcer of stomach and duodenum	1	-	-	-	-	-	-	-	-	-	1	-	
Gastritis, enteritis and diarrhoea	1	-	-	-	-	-	-	-	-	-	-	1	
Nephritis and nephrosis	3	-	-	-	-	-	-	-	-	1	1	1	
Congenital malformations	2	1	-	-	-	-	1	-	-	-	-	-	
Other def. and ill-def. diseases	25	3	-	1	1	1	1	1	-	1	1	15	
Motor vehicle accidents	4	-	-	-	-	-	1	-	1	-	2	-	
All other accidents	1	-	-	-	-	-	-	-	-	-	1	-	
Suicide	1	-	-	-	-	-	-	-	1	-	-	-	

TABLE IIIC - CAUSES OF DEATH ACCORDING TO AGE AND SEX

Registrar General's Return

1965 Dartford R.D.

	All ages	- 27 days	4 weeks	1 - 4 yrs	5 - 14 yrs	15 - 24 yrs	25 - 34 yrs	35 - 44 yrs	45 - 54 yrs	55 - 64 yrs	65 - 74 yrs	75 +	Main causes
<u>Males</u>													
All causes	291	7	-	2	6	2	2	8	28	49	72	115	
Syphilitic diseases	1	-	-	-	-	-	-	-	-	-	-	1	
Other infective and parasitic dis.	2	-	-	1	-	-	-	-	-	1	-	-	
Malignant neoplasm, stomach	7	-	-	-	-	-	-	-	-	1	4	2	56
Malignant neoplasm, lung bronchus	21	-	-	-	-	-	-	-	4	6	8	3	
Other malignant and lymphatic neoplasms	26	-	-	-	1	-	-	2	3	1	7	12	
Leukaemia, aleukeamia	2	-	-	-	-	-	-	-	1	-	1	-	
Diabetes	2	-	-	-	-	-	-	1	-	-	1	-	
Vascular lesions of nervous system	29	-	-	-	-	1	-	-	1	7	10	10	29
Coronary disease, angina	68	-	-	-	-	-	-	1	8	14	20	25	107
Hypertension with heart disease	3	-	-	-	-	-	-	-	-	1	1	1	
Other heart disease	26	-	-	-	-	-	-	-	3	3	5	15	
Other circulatory disease	10	-	-	-	1	-	-	-	1	2	1	5	
Influenza	1	-	-	-	-	-	-	-	-	-	-	1	52
Pneumonia	27	-	-	-	1	-	-	-	2	4	4	16	
Bronchitis	22	-	-	-	-	-	-	-	-	5	5	12	
Other diseases of resp. system	2	-	-	-	-	-	-	-	-	1	-	1	
Ulcer of stomach and duodenum	2	-	-	-	-	-	-	-	-	-	-	2	
Hyperplasia of prostate	1	-	-	-	-	-	-	-	-	1	-	-	
Other def. and ill-def. diseases	27	5	-	1	1	1	1	2	2	2	4	8	
Motor vehicle accidents	3	-	-	-	1	-	-	1	1	-	-	-	
All other accidents	2	-	-	-	-	-	-	-	1	-	-	1	
Suicide	3	-	-	-	-	-	1	-	1	-	1	-	
Congenital malformations	4	2	-	-	1	-	-	1	-	-	-	-	
<u>Females</u>													
All causes	272	3	3	2	-	-	2	6	13	45	58	140	
Tuberculosis, respiratory	4	-	-	-	-	-	-	-	-	3	-	1	
Tuberculosis, other	-	-	-	-	-	-	-	-	-	-	-	-	
Measles	2	-	1	-	-	-	1	-	-	-	-	-	
Malignant neoplasm, stomach	4	-	-	-	-	-	-	-	-	1	2	1	43
Malignant neoplasm, lung bronchus	4	-	-	-	-	-	-	-	1	3	-	-	
Malignant neoplasm, breast	9	-	-	-	-	-	-	-	2	5	-	2	
Malignant neoplasm, uterus	1	-	-	-	-	-	-	-	1	-	-	-	
Other malignant and lymphatic neop.	22	-	-	-	-	-	-	1	2	6	6	7	49
Leukaemia, aleukaemia	3	-	-	-	-	-	-	-	-	3	-	-	
Diabetes	1	-	-	-	-	-	-	-	-	-	-	1	
Vascular lesions of nervous system	42	-	-	-	-	-	-	1	1	5	6	29	42
Coronary disease, angina	53	-	-	-	-	-	-	-	1	4	20	28	93
Hypertension with heart disease	3	-	-	-	-	-	-	-	-	-	-	3	
Other heart disease	19	-	-	-	-	-	-	1	1	3	4	10	
Other circulatory disease	18	-	-	-	-	-	-	1	1	2	-	14	
Pneumonia	30	-	1	1	-	-	-	-	1	4	3	20	49
Bronchitis	16	-	-	-	-	-	-	-	-	2	8	6	
Other diseases of respiratory system	3	-	-	-	-	-	-	-	1	-	1	1	
Ulcer of stomach and duodenum	2	-	-	-	-	-	-	-	-	-	-	2	
Gastritis, enteritis and diarrhoea	3	-	-	-	-	-	-	1	-	-	1	1	
Nephritis and nephrosis	3	-	-	-	-	-	-	1	-	-	-	2	
Congenital malformations	2	-	-	-	-	-	-	-	-	1	1	-	
Other def. and ill-def. diseases	23	3	1	-	-	-	-	-	1	3	4	11	
All other accidents	3	-	-	1	-	-	-	-	-	-	1	1	
Suicide	1	-	-	-	-	-	-	-	-	-	1	-	
Homicide and operations of war	1	-	-	-	-	-	1	-	-	-	-	-	

TABLE IVA - CAUSES OF DEATH ACCORDING TO AGE

Compiled locally

1964 Dartford R.D.

Persons	All ages	Under 4 weeks	4 wks - 1 yr	1 - 2 yrs	2 - 4 yrs	5 - 14 yrs	15 - 24 yrs	25 - 34 yrs	35 - 44 yrs	45 - 54 yrs	55 - 64 yrs	65 - 74 yrs	75 +
All causes	566	15	3	3	1	4	3	9	18	39	77	137	257
Tuberculosis, respiratory	3	-	-	-	-	-	-	-	-	-	-	2	1
Tuberculosis, other	1	-	-	-	-	-	-	-	1	-	-	-	-
Syphilitic disease	1	-	-	-	-	-	-	-	-	-	-	1	-
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	-
Whooping cough	-	-	-	-	-	-	-	-	-	-	-	-	-
Meningococcal infections	-	-	-	-	-	-	-	-	-	-	-	-	-
Acute poliomyelitis	-	-	-	-	-	-	-	-	-	-	-	-	-
Measles	-	-	-	-	-	-	-	-	-	-	-	-	-
Other infective and parasitic dis.	1	-	1	-	-	-	-	-	-	-	-	-	-
Malignant neoplasms, stomach	13	-	-	-	-	-	-	-	-	-	2	2	9
Malignant neoplasm, lung bronchus	24	-	-	-	-	-	-	-	-	1	7	11	5
Malignant neoplasm, breast	14	-	-	-	-	-	-	-	2	3	3	3	3
Malignant neoplasm, uterus	3	-	-	-	-	-	-	-	1	-	-	1	1
Other malignant and lymph. neoplasms	46	-	-	-	-	-	1	1	9	9	12	14	14
Leukaemia, aleukaemia	4	-	-	-	-	-	-	-	1	1	1	1	1
Diabetes	-	-	-	-	-	-	-	-	-	-	-	-	-
Vascular lesions of nervous system	62	-	-	-	-	-	1	1	-	5	16	39	39
Coronary disease, angina	118	-	-	-	-	-	-	3	9	24	32	50	50
Hypertension with heart disease	3	-	-	-	-	-	-	-	-	1	-	2	2
Other heart disease	42	1	-	-	-	-	-	1	1	4	5	30	30
Other circulatory disease	33	-	-	-	-	-	-	-	1	4	13	15	15
Influenza	1	-	-	-	-	-	-	-	-	-	-	1	1
Pneumonia	55	-	-	1	-	-	-	-	2	4	14	34	34
Bronchitis	37	-	-	-	-	-	-	-	4	1	10	22	22
Other diseases of resp. system	8	-	-	-	-	-	1	1	-	3	-	3	3
Ulcer of stomach and duodenum	3	-	-	-	-	-	-	1	-	1	-	1	1
Gastritis, enteritis and diarrhoea	3	-	1	-	-	-	-	-	-	1	-	1	1
Nephritis and nephrosis	4	-	-	-	-	-	-	1	-	1	1	1	1
Hyperplasia of prostate	1	-	-	-	-	-	-	-	-	-	1	-	-
Pregnancy, childbirth and abortion	-	-	-	-	-	-	-	-	-	-	-	-	-
Congenital malformations	6	4	1	-	-	-	-	-	1	-	-	-	-
Other def. and ill-def. diseases	56	10	-	2	-	2	2	2	3	4	8	21	21
Motor vehicle accidents	15	-	-	-	1	2	1	3	1	3	-	3	1
All other accidents	7	-	-	-	-	-	-	1	2	-	1	2	2
Suicide	2	-	-	-	-	-	-	-	-	1	1	-	-
Homicide and operations of war	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE IV B - CAUSES OF DEATH ACCORDING TO AGE

Compiled locally

1965 Dartford R.D.

Persons	All ages	Under 4 weeks	4 wks - 1 yr	1 - 2 yrs	2 - 4 yrs	5 - 14 yrs	15 - 24 yrs	25 - 34 yrs	35 - 44 yrs	45 - 54 yrs	55 - 64 yrs	65 - 74 yrs	75 +
All causes	560	10	3	1	3	6	1	4	14	41	92	131	254
Tuberculosis, respiratory	3	-	-	-	-	-	-	-	-	-	3	-	-
Tuberculosis, other	-	-	-	-	-	-	-	-	-	-	-	-	-
Syphilitic disease	2	-	-	-	-	-	-	-	-	-	-	-	2
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	-
Whooping cough	-	-	-	-	-	-	-	-	-	-	-	-	-
Meningococcal infections	-	-	-	-	-	-	-	-	-	-	-	-	-
Acute poliomyelitis	-	-	-	-	-	-	-	-	-	-	-	-	-
Measles	2	-	1	-	-	-	-	1	-	-	-	-	-
Other infective and parasitic dis.	-	-	-	-	-	-	-	-	-	-	-	-	-
Malignant neoplasm, stomach	14	-	-	-	-	-	-	-	1	-	3	6	4
Malignant neoplasm, lung bronchus	19	-	-	-	-	-	-	-	-	5	7	5	2
Malignant neoplasm, breast	9	-	-	-	-	-	-	-	-	2	4	1	2
Malignant neoplasm, uterus	2	-	-	-	-	-	-	-	-	1	-	-	1
Other malignant and lymph. neoplasms	43	-	-	-	-	-	-	-	2	5	6	13	17
Leukaemia, aleukaemia	5	-	-	-	-	-	-	-	-	1	3	1	-
Diabetes	4	-	-	-	-	-	-	-	1	-	-	1	2
Vascular lesions of nervous system	71	-	-	-	-	-	-	-	1	2	14	17	37
Coronary disease, angina	116	-	-	-	-	-	-	-	1	9	17	37	52
Hypertension with heart disease	2	-	-	-	-	-	-	-	-	-	-	1	1
Other heart disease	50	-	-	-	-	-	-	-	1	3	6	9	31
Other circulatory disease	31	-	-	-	-	1	-	-	-	4	3	5	18
Influenza	1	-	-	-	-	-	-	-	-	-	-	-	1
Pneumonia	64	-	1	-	1	1	-	-	1	3	10	8	39
Bronchitis	34	-	-	-	-	-	-	-	-	-	6	12	16
Other diseases of the resp. system	4	-	-	-	-	-	-	-	-	-	-	1	-
Ulcer of stomach and duodenum	3	-	-	-	-	-	-	-	-	-	-	-	-
Gastritis, enteritis and diarrhoea	1	-	-	-	-	-	-	-	1	-	-	-	-
Nephritis and nephrosis	3	-	-	-	-	-	-	-	1	-	-	-	-
Hyperplasia of prostate	1	-	-	-	-	-	-	-	-	-	1	-	-
Pregnancy, childbirth and abortion	-	-	-	-	-	-	-	-	-	-	-	-	-
Congenital malformation	4	2	-	-	-	-	-	-	1	-	1	-	-
Other def. and ill-def. diseases	60	8	1	1	1	3	1	1	2	3	8	12	1
Motor vehicle accidents	3	-	-	-	-	1	-	-	1	1	-	-	-
All other accidents	4	-	-	-	1	-	-	-	-	1	-	-	-
Suicide	4	-	-	-	-	-	-	1	-	1	-	2	-
Homicide and operations of war	1	-	-	-	-	-	-	1	-	-	-	-	-

TABLE Vb - CAUSES OF DEATH

Ages 75 and over
(compiled locally)

Dartford R.D.

1965

MALE

FEMALE

Total males
and females

Total

75-79

80-84

85-89

90-94

Total

75-79

80-84

85-89

90-94

95-99

Persons

All causes	254	118	50	32	28	8	136	38	43	38	15	2
Tuberculosis, respiratory	1	1	1	1	1	1	1	1	1	1	1	1
Tuberculosis, other	1	1	1	1	1	1	1	1	1	1	1	1
Syphilitic disease	2	2	2	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1
Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1
Meningococcal infections	1	1	1	1	1	1	1	1	1	1	1	1
Acute poliomyelitis	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1
Other infective and parasitic diseases	1	1	1	1	1	1	1	1	1	1	1	1
Malignant neoplasm, stomach	4	2	2	1	1	1	2	1	1	1	1	1
Malignant neoplasm, lung bronchus	2	2	2	1	1	1	2	1	1	1	1	1
Malignant neoplasm, breast	2	1	1	1	1	1	2	1	1	1	1	1
Malignant neoplasm, uterus	1	1	1	1	1	1	1	1	1	1	1	1
Other malignant and lymphatic neoplasms	17	11	4	1	6	1	6	1	2	3	1	1
Leukaemia, aleukaemia	1	1	1	1	1	1	1	1	1	1	1	1
Diabetes	2	1	1	1	1	1	2	1	2	1	1	1
Vascular lesions of nervous system	37	11	6	3	1	1	26	8	10	4	3	1
Coronary disease, angina	51	24	13	6	3	2	27	8	11	5	2	1
Hypertension with heart disease	2	1	1	1	1	1	2	1	1	1	1	1
Other heart disease	31	16	2	9	5	1	15	5	4	4	2	1
Other circulatory disease	18	7	3	1	2	1	11	3	2	5	1	1
Influenza	1	1	1	1	1	1	1	1	1	1	1	1
Pneumonia	39	19	7	5	5	2	20	4	3	9	4	1
Bronchitis	16	12	4	5	2	1	4	2	1	1	1	1
Other diseases of resp. system	3	2	2	1	1	1	1	1	1	1	1	1
Ulcer of stomach and duodenum	3	2	1	1	1	1	1	1	1	1	1	1
Gastritis, enteritis and diarrhoea	1	1	1	1	1	1	1	1	1	1	1	1
Nephritis and nephrosis	2	1	1	1	1	1	2	1	1	1	1	1
Hyperplasia of prostate	1	1	1	1	1	1	1	1	1	1	1	1
Pregnancy, childbirth and abortion	1	1	1	1	1	1	1	1	1	1	1	1
Congenital malformations	1	1	1	1	1	1	1	1	1	1	1	1
Other def. and ill-def. diseases	19	6	1	1	3	1	13	3	5	3	2	1
Motor vehicle accidents	1	1	1	1	1	1	1	1	1	1	1	1
All other accidents	2	1	1	1	1	1	1	1	1	1	1	1
Suicide	1	1	1	1	1	1	1	1	1	1	1	1
Homicide and operations of war	1	1	1	1	1	1	1	1	1	1	1	1

TABLE Va - CAUSES OF DEATH

Ages 75 and over

(compiled locally)

Dartford R.D.

1964

MALE

FEMALE

Persons	Total males and females	MALE					FEMALE				
	Total	75-79	80-84	85-89	90-94	Total	75-79	80-84	85-89	90-94	Total
All causes	257	114	52	36	10	16	143	40	45	36	22
Tuberculosis, respiratory	1	1	1	-	-	-	-	-	-	-	-
Tuberculosis, other	-	-	-	-	-	-	-	-	-	-	-
Syphilitic disease	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	-	-	-	-	-	-	-	-	-	-	-
Whooping cough	-	-	-	-	-	-	-	-	-	-	-
Meningococcal infections	-	-	-	-	-	-	-	-	-	-	-
Acute poliomyelitis	-	-	-	-	-	-	-	-	-	-	-
Measles	-	-	-	-	-	-	-	-	-	-	-
Other infective and parasitic diseases	-	-	-	-	-	-	-	-	-	-	-
Malignant neoplasm, stomach	9	4	2	2	-	-	5	1	3	-	1
Malignant neoplasm, lung bronchus	5	5	3	1	1	-	-	-	-	-	-
Malignant neoplasm, breast	3	-	-	-	-	-	3	1	1	1	-
Malignant neoplasm, uterus	1	-	-	-	-	-	1	1	-	-	-
Other malignant and lymphatic neoplasms	14	6	3	2	-	1	8	2	3	1	2
Leukaemia, aleukaemia	1	-	-	-	-	-	1	-	1	-	-
Diabetes	-	-	-	-	-	-	-	-	-	-	-
Vascular lesions of nervous system	39	14	8	4	1	1	25	8	6	6	5
Coronary disease, angina	50	25	13	8	3	1	25	6	8	6	5
Hypertension with heart disease	2	1	1	-	-	-	1	1	-	-	-
Other heart disease	30	11	2	3	1	5	19	4	6	7	2
Other circulatory disease	14	5	3	2	-	-	9	1	4	2	2
Influenza	1	-	-	-	-	-	1	1	-	-	-
Pneumonia	34	14	4	4	3	3	20	5	5	8	2
Bronchitis	23	16	8	6	-	2	7	4	1	2	-
Other diseases of resp, system	3	3	1	1	-	1	-	-	-	-	-
Ulcer of stomach and duodenum	1	1	-	-	1	-	-	-	-	-	-
Gastritis, enteritis and diarrhoea	1	-	-	-	-	-	1	1	-	-	-
Nephritis and nephrosis	1	-	-	-	-	-	1	-	1	-	-
Hyperplasia of prostate	-	-	-	-	-	-	-	-	-	-	-
Pregnancy, childbirth and abortion	-	-	-	-	-	-	-	-	-	-	-
Congenital malformations	-	-	-	-	-	-	-	-	-	-	-
Other def. and ill-def. diseases	21	5	2	2	-	1	16	4	6	3	3
Motor vehicle accidents	1	1	-	1	-	-	-	-	-	-	-
All other accidents	-	-	-	-	-	-	-	-	-	-	-
Suicide	2	2	1	-	-	1	-	-	-	-	-
Homicide and operations of war	-	-	-	-	-	-	-	-	-	-	-

TABLE VI - DEATHS BY QUARTER AND PLACE

		1964		Dartford R.D.		
		1st qr.	2nd qr.	3rd qr.	4th qr.	Year
Deaths assigned to R.D.		161	121	134	150	566
Mental hospital deaths		<u>17</u>	<u>12</u>	<u>15</u>	<u>11</u>	<u>55</u>
. Non-institutional deaths		144	109	119	139	511
Number of deaths						
Dartford R.D.	1961	164	107	128	134	533
	1962	170	122	112	154	558
	1963	194	121	122	136	573
	1964	161	121	134	150	566
Death rates	1961	13.6	8.8	10.5	11.1	11.0
	1962	14.1	10.1	9.3	12.7	11.5
	1963	15.1	9.4	9.5	10.6	11.2
	1964	12.3	8.9	10.2	11.4	9.8
Dartford R.D. adjusted by C.F.						
England & Wales	1961	15.6	10.9	9.5	11.9	12.0
	1962	15.5	11.1	9.4	11.9	11.9
	1963	17.0	11.0	9.6	11.2	12.2
	1964	13.2	10.8	9.5	11.6	11.3

NON-INSTITUTIONAL DEATHS BY PLACE OF OCCURRENCE

All ages	M	F	M	F	M	F	M	F	P
Home	25	22	12	19	17	12	31	26	164
Hospital	51	41	45	28	51	35	48	33	332
Elsewhere	<u>3</u>	<u>2</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>-</u>	<u>-</u>	<u>1</u>	<u>15</u>
	79	65	59	50	72	47	79	60	511
Aged 75 +									
Home	10	12	3	13	5	8	12	17	80
Hospital	19	27	17	19	20	14	23	15	154
Elsewhere	<u>1</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1</u>
	30	39	20	32	25	22	35	32	235

NON-INSTITUTIONAL DEATHS AS PERCENTAGE OF ALL DEATHS

All ages									
Home	33	34	21	38	24	26	39	44	32
Hospital	64	63	76	56	70	74	61	56	65
Elsewhere	<u>3</u>	<u>3</u>	<u>3</u>	<u>6</u>	<u>6</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>3</u>
	100	100	100	100	100	100	100	100	100
Aged 75+									
Home	33	31	15	41	20	37	34	53	34
Hospital	63	69	85	59	80	63	66	47	66
Elsewhere	<u>4</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
	100	100	100	100	100	100	100	100	100

Deaths in Hospital*

	Dartford Town	Dartford R.D.	Northfleet U.D.
1964 all ages	72%	65%	55%
aged 75+	71%	66%	48%

Deaths at ages of 65 and over as percentage of deaths at all ages.

65 to 74			75 years and over		
Dartford R. D.	England & Wales		Dartford R.D.	England & Wales	
1962 120	22%	26%	258	46%	43%
1963 123	23%	25%	258	44%	43%
1964 137	24%	25%	257	45%	42%

* Percentages of deaths occurring in hospital are of interest in regard to social habit and background of diagnosis.

TABLE VI -DEATHS BY QUARTER AND PLACE

		1965 Dartford R.D.				
		1st qr.	2nd qr.	3rd qr.	4th qr.	Year
Deaths assigned to R.D.		156	118	138	148	560
Mental hospital deaths		<u>15</u>	<u>18</u>	<u>21</u>	<u>16</u>	<u>70</u>
.. Non-institutional deaths		141	100	117	132	490
Number of deaths						
Dartford R.D.	1962	170	122	112	154	558
	1963	194	121	122	136	573
	1964	161	121	134	150	566
	1965	156	118	138	148	560
Death rates Dartford R.D. adjusted by C.F.	1962	14.1	10.1	9.3	12.7	11.5
	1963	15.1	9.4	9.5	10.6	11.2
	1964	12.3	8.9	10.2	11.4	9.8
	1965	11.5	8.7	10.2	10.8	10.4
England & Wales	1962	15.5	11.1	9.4	11.9	11.9
	1963	17.0	11.0	9.6	11.2	12.2
	1964	13.2	10.8	9.5	11.6	11.3
	1965	13.3	10.9	9.9	11.9	11.5

NON-INSTITUTIONAL DEATHS BY PLACE OF OCCURRENCE

All ages	M	F	M	F	M	F	M	F	P
Home	23	17	15	23	20	22	33	20	173
Hospital	49	49	32	28	37	35	50	28	308
Elsewhere	<u>2</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>-</u>	<u>3</u>	<u>1</u>	<u>-</u>	<u>9</u>
	74	67	48	52	57	60	84	48	490
Aged 75+									
Home	10	5	8	17	9	13	14	13	89
Hospital	25	21	12	14	14	14	17	15	132
Elsewhere	<u>1</u>	<u>-</u>	<u>-</u>	<u>1</u>	<u>-</u>	<u>3</u>	<u>-</u>	<u>-</u>	<u>5</u>
	36	26	20	32	23	30	31	28	226

NON-INSTITUTIONAL DEATHS AS PERCENTAGE OF ALL DEATHS

All ages	31	26	31	45	35	36	40	41	35
Home	65	74	67	54	65	59	60	59	63
Hospital	<u>4</u>	<u>-</u>	<u>2</u>	<u>1</u>	<u>-</u>	<u>5</u>	<u>-</u>	<u>-</u>	<u>2</u>
Elsewhere	100	100	100	100	100	100	100	100	100
Aged 75+									
Home	28	19	40	52	39	43	45	46	39
Hospital	70	81	60	44	61	47	55	54	58
Elsewhere	<u>2</u>	<u>-</u>	<u>-</u>	<u>4</u>	<u>-</u>	<u>10</u>	<u>-</u>	<u>-</u>	<u>3</u>
	100	100	100	100	100	100	100	100	100

Deaths in Hospital

	Dartford Town	Dartford R.D.	Northfleet U.D.
1965 all ages	72%	63%	47%
aged 75+	73%	58%	46%

Deaths at ages of 65 and over as percentage of deaths at all ages

65 to 74			75 years and over		
Dartford R.D.	England & Wales		Dartford R.D.	England & Wales	
1963 123	23%	25%	258	44%	43%
1964 137	24%	25%	257	45%	42%
1965 131	23%	26%	254	45%	43%

TABLE VII - MAIN CAUSES OF DEATH- 1964

By month and quarter (compiled locally) Dartford R.D.

All ages	All casues	Main causes	Other casues	Circ: disease	Cancer	Vasc.les. N.S.	Resp. disease
January	66	52	14	18	13	6	15
February	51	37	14	15	10	3	9
March	44	39	5	16	8	6	9
1st qr.	161	128	33	49	31	15	33
April	47	40	7	14	8	13	5
May	43	37	6	18	6	6	7
June	31	26	5	7	6	6	7
2nd qr.	121	103	18	39	20	25	19
July	47	35	12	14	13	4	4
August	45	39	6	19	9	1	10
September	42	36	6	17	9	4	6
3rd qr.	134	110	24	50	31	9	20
October	48	38	10	23	8	2	5
November	46	35	11	15	3	5	12
December	56	49	7	20	11	6	12
4th qr.	<u>150</u>	<u>122</u>	<u>28</u>	<u>58</u>	<u>22</u>	<u>13</u>	<u>29</u>
Year	<u>566</u>	<u>463</u>	<u>103</u>	<u>196</u>	<u>104</u>	<u>62</u>	<u>101</u>
<u>0-74</u>							
January	33	25	8	9	7	1	8
February	30	21	9	7	7	2	5
March	21	18	3	9	6	1	2
1st qr.	84	64	20	25	20	4	15
April	21	15	6	5	5	4	1
May	26	21	5	11	5	1	4
June	17	12	5	3	4	2	3
2nd qr.	64	48	16	19	14	7	8
July	33	24	9	10	9	3	2
August	25	21	4	9	7	1	4
September	24	19	5	8	5	3	3
3rd qr.	82	64	18	27	21	7	9
October	29	20	9	13	6	1	-
November	20	13	7	6	2	1	4
December	30	25	5	10	8	3	4
4th qr.	<u>79</u>	<u>58</u>	<u>21</u>	<u>29</u>	<u>16</u>	<u>5</u>	<u>8</u>
Year	<u>309</u>	<u>234</u>	<u>75</u>	<u>100</u>	<u>71</u>	<u>23</u>	<u>40</u>
<u>75+</u>							
January	33	27	6	9	6	5	7
February	21	16	5	8	3	1	4
March	23	21	2	7	2	5	7
1st qr.	77	64	13	24	11	11	18
April	26	25	1	9	3	9	4
May	17	16	1	7	1	5	3
June	14	14	-	4	2	4	4
2nd qr.	57	55	2	20	6	18	11
July	14	11	3	4	4	1	2
August	20	18	2	10	2	-	6
September	18	17	1	9	4	1	3
3rd qr.	52	46	6	23	10	2	11
October	20	18	2	10	2	1	5
November	26	22	4	9	1	4	8
December	25	24	1	10	3	3	8
4th qr.	<u>71</u>	<u>64</u>	<u>7</u>	<u>29</u>	<u>6</u>	<u>8</u>	<u>21</u>
Year	<u>257</u>	<u>229</u>	<u>28</u>	<u>96</u>	<u>33</u>	<u>39</u>	<u>61</u>

TABLE VII - MAIN CAUSES OF DEATH - 1965

By month and quarter (compiled locally) Dartford R.D.

All ages	All causes	Main causes	Other causes	Circ: diseases	Cancer	Vasc.les. N.S.	Resp. disease
January	54	44	10	13	12	3	16
February	42	38	4	18	5	6	9
March	60	46	14	13	10	6	17
1st qr.	156	128	28	44	27	15	42
April	38	30	8	12	5	4	9
May	57	47	10	22	6	9	10
June	23	18	5	10	4	2	2
2nd qr.	118	95	23	44	15	15	21
July	34	31	3	11	5	9	6
August	45	35	10	13	8	9	5
September	58	50	8	20	12	8	10
3rd qr.	137	116	21	44	25	26	21
October	55	48	7	26	8	8	6
November	49	41	8	24	7	2	8
December	45	37	8	17	11	5	5
4th qr.	<u>149</u>	<u>126</u>	<u>23</u>	<u>67</u>	<u>25</u>	<u>15</u>	<u>19</u>
Year	560	465	95	199	92	71	103
<u>0-74</u>							
January	33	26	7	8	10	1	7
February	20	17	3	8	3	2	4
March	37	25	11	7	8	3	7
1st qr.	89	68	21	23	21	6	8
April	18	12	6	4	1	3	4
May	27	22	5	12	4	2	4
June	13	9	4	4	3	1	1
2nd qr.	58	43	15	20	8	6	9
July	17	15	2	4	4	4	3
August	28	23	5	7	7	6	3
September	35	24	7	8	9	5	2
3rd qr.	76	62	14	19	20	15	8
October	33	28	5	15	7	5	1
November	25	21	4	11	5	1	4
December	27	20	5	10	5	1	4
4th qr.	<u>83</u>	<u>69</u>	<u>14</u>	<u>36</u>	<u>17</u>	<u>7</u>	<u>9</u>
Year	306	242	64	98	66	34	44
<u>75+</u>							
January	21	18	3	5	2	2	9
February	23	21	2	10	2	4	5
March	23	21	2	6	2	3	10
1st qr.	67	60	7	21	6	9	24
April	20	18	2	8	4	1	5
May	30	25	5	10	2	7	6
June	10	9	1	6	1	1	1
2nd qr.	60	52	8	24	7	9	12
July	17	16	1	7	1	5	3
August	17	12	5	6	1	3	2
September	27	26	1	12	3	3	8
3rd qr.	61	54	7	25	5	11	13
October	21	19	2	10	1	3	5
November	25	21	4	14	2	1	4
December	20	17	3	7	5	4	1
4th qr.	<u>66</u>	<u>57</u>	<u>9</u>	<u>31</u>	<u>8</u>	<u>8</u>	<u>10</u>
Year	254	223	31	101	26	37	59

TABLE VII - MAIN CAUSES OF DEATH (continued)

1964 Dartford R.D.

All ages	All causes	Main causes	Other causes	(440-468) Circulatory diseases	Main causes (140-205) Cancer	(330-334) Vasc.les. C.N.A.	(470-527) Resp. diseases
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As percentage of all causes

Dartford Rural District (Registrar General's figures)

1963	578	468	111	214	110	57	86
%	100%	81%	19%	37%	19%	10%	15%
1964	569	473	96	204	106	65	98
%	100%	83%	17%	36%	19%	11%	17%

England & Wales (Registrar General's figures)

1963	572,868	477,021	95,847	213,522	102,416	80,340	80,743
%	100%	83%	17%	37%	18%	14%	14%
1964	534,737	441,816	92,921	198,192	104,699	73,965	64,960
%	100%	83%	17%	37%	20%	14%	12%

Dartford Rural District (local figures)

All ages							
1st qr.	100%	79%	21%	30%	19%	9%	21%
2nd qr.	100%	85%	15%	31%	17%	21%	16%
3rd qr.	100%	82%	18%	37%	23%	7%	15%
4th qr.	<u>100%</u>	<u>82%</u>	<u>18%</u>	<u>39%</u>	<u>15%</u>	<u>9%</u>	<u>19%</u>
Year	100%	82%	18%	35%	19%	10%	18%

Aged 0-74 years

1st qr.	100%	76%	24%	30%	26%	4%	18%
2nd qr.	100%	75%	25%	30%	22%	10%	13%
3rd qr.	100%	78%	22%	33%	25%	9%	11%
4th qr.	<u>100%</u>	<u>73%</u>	<u>27%</u>	<u>36%</u>	<u>20%</u>	<u>6%</u>	<u>11%</u>
Year	100%	76%	24%	33%	23%	7%	13%

Aged 75+

1st qr.	100%	83%	17%	31%	14%	14%	24%
2nd qr.	100%	96%	4%	35%	10%	31%	20%
3rd qr.	100%	89%	11%	44%	19%	4%	22%
4th qr.	<u>100%</u>	<u>90%</u>	<u>10%</u>	<u>41%</u>	<u>8%</u>	<u>12%</u>	<u>29%</u>
Year	100%	89%	11%	37%	13%	15%	24%

Distribution of deaths from each main cause between two age groups as % of all ages

Dartford Rural District

Aged 0-74 years

1st qr.	52%	50%	60%	51%	65%	27%	45%
2nd qr.	53%	47%	89%	49%	70%	28%	42%
3rd qr.	62%	59%	75%	54%	68%	78%	45%
4th qr.	<u>53%</u>	<u>47%</u>	<u>75%</u>	<u>50%</u>	<u>72%</u>	<u>38%</u>	<u>27%</u>
Year	68%	50%	73%	51%	68%	38%	36%

Aged 75+

1st qr.	48%	50%	40%	49%	35%	73%	55%
2nd qr.	47%	53%	11%	51%	30%	72%	58%
3rd qr.	38%	41%	25%	46%	32%	22%	55%
4th qr.	<u>47%</u>	<u>53%</u>	<u>25%</u>	<u>50%</u>	<u>28%</u>	<u>62%</u>	<u>73%</u>
Year	32%	50%	27%	49%	32%	62%	64%

TABLE VII - MAIN CAUSES OF DEATH (continued)

1965 Dartford R.D.

All ages	Main causes						
	All causes	Main causes	Other causes	(440-468) Circulatory diseases	(140-205) Cancer	(330-334) Vasc.les. C.N.S.	(470-527) Resp. diseases
As percentage of all causes							
Dartford Rural District (Registrar General's figures)							
1964	569	473	96	204	106	65	98
%	100%	83%	17%	36%	19%	11%	17%
1965	563	471	92	200	99	71	101
%	100%	84%	16%	35%	18%	13%	18%
England & Wales (Registrar General's figures)							
1964	534,737	441,816	92,921	198,192	104,699	73,965	64,960
%	100%	83%	17%	37%	20%	14%	12%
1965	549,379	457,845	91,534	206,180	106,338	78,149	67,178
%	100%	83%	17%	38%	19%	14%	12%
Dartford Rural District (local figures)							
1st qr.	100%	82%	18%	28%	17%	10%	27%
2nd qr.	100%	80%	20%	36%	13%	13%	18%
3rd qr.	100%	85%	15%	32%	18%	19%	16%
4th qr.	100%	85%	15%	45%	18%	10%	12%
Year	100%	83%	17%	35%	17%	13%	18%
Aged 0-74 years							
1st qr.	100%	77%	23%	26%	24%	7%	20%
2nd qr.	100%	72%	28%	33%	14%	10%	15%
3rd qr.	100%	82%	18%	28%	25%	19%	10%
4th qr.	100%	85%	15%	39%	22%	11%	13%
Year	100%	79%	21%	31%	22%	11%	15%
Aged 75+							
1st qr.	100%	89%	11%	31%	9%	13%	36%
2nd qr.	100%	87%	13%	40%	12%	15%	20%
3rd qr.	100%	88%	12%	38%	9%	19%	22%
4th qr.	100%	85%	15%	54%	9%	9%	13%
Year	100%	87%	13%	40%	10%	14%	23%
Distribution of deaths from each main cause between two age groups as % of all ages							
Aged 0-74 years							
1st qr.	57%	53%	76%	52%	78%	40%	43%
2nd qr.	49%	44%	67%	44%	53%	40%	43%
3rd qr.	66%	57%	67%	50%	80%	57%	38%
4th qr.	63%	63%	63%	55%	81%	67%	63%
Year	58%	54%	68%	51%	75%	52%	45%
Aged 75+							
1st qr.	43%	47%	24%	48%	22%	60%	57%
2nd qr.	51%	56%	33%	56%	47%	60%	57%
3rd qr.	34%	43%	33%	50%	20%	43%	62%
4th qr.	37%	37%	37%	45%	19%	33%	37%
Year	42%	46%	32%	49%	25%	48%	55%

TABLE VII - MAIN CAUSES OF DEATH (continued)

Dartford R.D.

Deaths from Respiratory Diseases

Deaths during whole years

	Aged 0 - 74 years			Aged 75 and over		
	Respiratory disease	All causes	% Respiratory	Respiratory disease	All causes	% Respiratory
1958	36	282	13%	40	211	19%
1959	32	273	12%	36	210	17%
1960	26	267	10%	26	189	14%
1961	25	286	9%	47	247	19%
1962	40	301	13%	50	257	19%
1963	39	314	12%	46	258	18%
1964	49	309	13%	61	257	23%
1965	47	320	15%	56	246	25%

Deaths during first quarters

1958	13	102	13%	20	72	28%
1959	12	80	15%	16	77	21%
1960	12	71	17%	8	56	14%
1961	11	72	15%	26	92	28%
1962	21	86	24%	23	86	27%
1963	17	92	17%	26	101	26%
1964	15	84	18%	18	77	23%
1965	18	89	20%	24	67	36%

1958	Virus A2 influenza first quarter
1959	Virus A2 and B influenza first quarter
1960	No influenza the whole year
1961	Virus A2 influenza first quarter
1962	Virus B influenza first quarter. Fog 3rd to 7th December
1963	Virus A2 influenza + exceptionally cold winter first quarter
1964	Virus A2 influenza elsewhere but little in evidence here in working population
1965	Virus A2 and B but little evidence here in the working population

TABLE VIII - PREVALENCE OF INFECTIOUS DISEASES

1964 Dartford R.D.

Notifiable Diseases (other than tuberculosis)

Disease										
General Population	Total	0-1	1-3	3-5	5-10	10-15	15-25	25-45	45-65+	Age?
Typhoid fever	-	-	-	-	-	-	-	-	-	-
Measles	495	7	97	150	233	4	-	2	-	2
Whooping cough	25	1	9	7	8	-	-	-	-	-
Scarlet fever	29	-	1	5	22	1	-	-	-	-
Pneumonia	2	-	-	-	-	-	-	1	1	-
Dysentery	7	-	-	2	2	-	1	-	2	-
Food poisoning	1	-	-	-	1	-	-	-	-	-
Paratyphoid fever	-	-	-	-	-	-	-	-	-	-
	559	8	107	164	266	5	1	3	3	2

Residential Institutions of more than 100 population

There was none

Measles (according to date of notifications)

	November	December	January	February	March	April	Total
1955-1956	-	1	-	2	-	4	7
1956-1967	-	-	16	26	153	119	314
1957-1958	-	-	1	-	-	3	4
1958-1959	15	70	113	106	58	32	394
1959-1960	-	2	-	-	-	-	2
1960-1961	11	15	312	528	306	117	1289
1961-1962	2	-	-	-	-	-	2
1962-1963	44	34	65	30	162	232	567
1963-1964	-	-	-	1	1	6	8
1964-1965	36	119	70	318	378	198	1119

	Ash	Darenth	Eynsford	Farningham	Fawkham	Hartley	Horton Kirby	West Kingsdown	Longfield	Southfleet	Stone	Sutton-at-Hone	Swanley	Wilmington	Total
January	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
February	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
March	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
April	-	-	-	-	-	-	-	-	-	-	1	-	3	2	6
May	3	1	-	-	-	-	3	-	-	-	-	43	4	25	79
June	-	2	1	-	-	-	9	-	-	-	2	14	1	17	46
July	-	53	1	-	-	-	9	-	-	-	14	6	7	24	114
August	-	26	-	4	2	-	25	1	-	1	11	2	7	1	80
September	-	-	-	-	-	-	-	2	-	-	1	-	3	1	7
October	-	-	-	-	-	-	-	-	-	-	1	-	5	-	6
November	-	-	2	-	-	-	-	-	-	-	1	-	31	2	36
December	-	-	16	-	-	-	-	-	-	1	1	2	95	4	119
Total for year	3	82	21	4	2	-	46	3	-	2	32	67	156	77	495

Non-notifiable diseases

The following non-notifiable diseases were reported from the schools:

German measles	5
Chicken pox	123
Pink eye	1
Mumps	191

TABLE VIII - PREVALENCE OF INFECTIOUS DISEASES

1965 Dartford R.D.

Notifiable Diseases (other than tuberculosis)

Disease										
<u>General Population</u>	Total	0-1	1-3	3-5	5-10	10-15	15-25	25-45	45-65+	Age ?
Typhoid fever	-	-	-	-	-	-	-	-	-	--
Measles	1039	32	238	322	407	16	7	4	1	12
Whooping cough	12	1	4	1	3	2	-	-	1	-
Scarlet fever	18	1	1	4	8	4	-	-	-	-
Pneumonia	2	-	-	-	-	-	-	1	1	-
Dysentery	3	1	1	-	-	-	-	1	-	-
Food poisoning	12	1	-	1	2	1	1	2	4	-
	1086	36	244	328	420	23	8	8	7	12

Residential Institutions of more than 100 population

Measles	33	1	1	2	13	7	3	4	1	1
Food poisoning	2	-	-	-	-	-	1	-	1	-
Whooping cough	2	-	-	-	2	-	-	-	-	-
	37	1	1	2	15	7	4	4	2	1

Measles (according to date of notification)

	November	December	January	February	March	April	Total
1956-1957	-	-	16	26	153	119	314
1957-1958	-	-	1	-	-	3	4
1958-1959	15	70	113	106	58	32	394
1959-1960	-	2	-	-	-	-	2
1960-1961	11	15	312	528	306	117	1289
1961-1962	2	-	-	-	-	-	2
1962-1963	44	34	65	30	162	232	567
1963-1964	-	-	-	1	1	6	8
1964-1965	36	119	70	318	378	198	1119
1965-1966	-	1	1	7	13	23	45

	Ash	Darenth	Eynsford	Farningham	Fawkham	Hartley	Horton Kirby	West Kingsdown	Longfield	Southfleet	Stone	Sutton-at-Hone	Swanley	Wilmington	Total
January	-	4	4	-	-	-	1	-	-	1	5	-	36	19	70
February	2	32	9	2	4	30	1	-	36	2	64	2	99	35	318
March	10	34	17	2	4	20	3	7	31	-	44	3	175	28	378
April	1	16	26	14	-	3	4	19	3	-	17	7	74	14	198
May	-	5	-	-	-	-	-	-	-	-	5	-	7	18	35
June	-	1	-	-	-	-	-	-	-	-	-	1	5	9	16
July	-	-	2	-	-	-	1	-	-	-	6	-	2	1	12
August	-	-	-	-	-	-	2	-	-	-	1	1	3	-	7
September	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
October	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-
November	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
December	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
Total for year	13	93	61	18	8	53	12	26	70	3	142	14	402	124	1039

Non-notifiable diseases

The following non-notifiable diseases were reported from the schools:

German measles	2
Chicken pox	39
Mumps	38

TABLE IX - TUBERCULOSIS, 1964 & 1965

(a) RESPIRATORY

Dartford R.D.						
NOTIFICATIONS	Year	No.	Year	No.	Year	No.
	1957	33	1960	25	1963	14
	1958	25	1961	23	1964	13
	1959	27	1962	20	1965	8

NOTIFICATIONS BY AGE

	Total	0-14	15-19	20-24	25-34	35-44	45-54	55-64	65+
1964									
Males	6	-	1	-	-	2	-	1	2
Females	7	3	1	-	1	-	-	1	1
	<u>13</u>	<u>3</u>	<u>2</u>	<u>-</u>	<u>1</u>	<u>2</u>	<u>-</u>	<u>2</u>	<u>3</u>

Of the 13 cases notified the diagnosis of one, a female aged 13 was not confirmed. Of those remaining the infectiousness of 9 was known to us, 6 were not infectious. The following 3 were infectious, 2 males aged 49 and 61 years, 1 female aged 64 years.

	Total	0-14	15-19	20-24	25-34	35-44	45-54	55-64	65+
1965									
Males	7	-	-	1	-	1	2	3	-
Females	1	-	-	1	-	-	-	-	-
	<u>8</u>	<u>-</u>	<u>-</u>	<u>2</u>	<u>-</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>-</u>

Of the 8 cases notified, one was found post.mortem as a contributory cause of death in a case of lung cancer (strictly: findings at p.m. although useful and important are not notifiable). Of the remaining 7 the infectiousness of 5 was known to us, 2 were not infectious. 3 males aged 46, 58 and 62 were infectious.

NUMBER OF CASES OF RESPIRATORY TUBERCULOSIS ON THE REGISTER

	Male	Female	Persons
Number on register at 31.12.61	270	195	465
31.12.62	271	207	478
31.12.63	272	210	482
31.12.64	272	205	477
31.12.65	262	192	454

CHANGES IN REGISTER

Additions; 1964		Removals; 1964	
New notifications	13	Left district	14
Came into district	26	Diagnosis not confirmed	3
Restored to register	<u>1</u>	Lost sight of	5
	<u>40</u>	Died	6
		Recovered	<u>17</u>
			<u>45</u>
Additions; 1965		Removals; 1965	
New notifications	8	Left district	9
Came into district	13	Lost sight of	4
Restored to register	-	Died	8
	<u>21</u>	Recovered	<u>23</u>
			<u>44</u>

TABLE IX - TUBERCULOSIS (continued)

(a) RESPIRATORY (continued) Dartford R.D.

DARTFORD CHEST CLINIC: Dartford Rural District provides about one quarter of the population served by the clinic.

	1961	1962	1963	1964	1965
Total persons attending for first time	1,516	1,715	1,528	1,317	1,444
(a) Referred by doctors	1,081	1,217	1,056	870	722
(b) Contacts	356	448	425	412	696
(c) From other sources, e.g. transfers	79	50	47	35	26
New cases					
(a) Active pulmonary tuberculosis	50	57	50	41	23
(b) Non-pulmonary tuberculosis	14	10	10	11	9
(c) Bronchial neoplasm	23	39	34	32	34
Found to be sputum positive					
(a) New cases	21	25	27	18	14
(b) Old cases	9	24	16	16	12
Total attendances	7,197	7,328	6,948	6,181	6,133
Total individuals attending	3,342	3,576	3,469	3,078	3,033

In addition to the above some 500 conditions other than tuberculosis or cancer were found each year.

TUBERCULOSIS (b) NON-RESPIRATORY

NOTIFICATIONS IN RECENT YEARS

1957	3	1960	5	1963	1
1958	4	1961	3	1964	2
1959	10	1962	2	1965	3

The 2 notifications in 1964 were a male aged 32 with tuberculosis of the kidney and a female aged 25 with tuberculosis of the kidney and lining of the womb.

The 3 notifications in 1965 were 3 males ages 54, 57 and 73 years, all with tuberculous lymph glands.

NUMBER OF CASES OF NON-PULMONARY TUBERCULOSIS ON REGISTER AT DECEMBER 31ST.

	Male	Female	Persons		Male	Female	Persons
1956	29	30	59	1961	23	24	47
1957	28	27	55	1962	22	23	45
1958	23	16	39	1963	19	21	40
1959	22	19	41	1964	20	22	42
1960	23	23	46	1965	21	22	43

CHANGES IN REGISTER

Additions:

1964	New notifications	2
	Restored to register	$\frac{1}{2}$

Removals:

1964	Recovered	$\frac{1}{1}$
------	-----------	---------------

1965	New notifications	3
	Came into district	$\frac{1}{4}$

1965	Died	1
	Recovered	$\frac{2}{2}$

The death of 1965 was the male aged 54 notified in 1965

Cause:	Ia.	Chronic pancreatitis
	II	Tuberculous lymphadenitis

TABLE IX - TUBERCULOSIS

(c) RESPIRATORY (continued)

MASS X-RAY SERVICE 1964

Dartford R.D.

	Routine										Persons
	Over 45 service				Mass X-ray Service				Total		
	Industry		Public		Industry*		Public				
	M	F	M	F	M	F	M	F	M	F	
No.X-rayed	167	1	-	-	959	191	829	795	1995	987	2942
Active											
Tuberculosis	1	-	-	-	2	1	-	-	3	1	4
Incidence%	6%	-	-	-	2%	5%	-	-	1.5%	1%	1.4%

NOT PREVIOUSLY X-RAYED (included in above)

No.X-rayed	24	-	-	-	360	109	367	462	751	571	1322
Active											
Tuberculosis	-	-	-	-	1	1	-	-	1	1	2
Incidence %	-	-	10%	-	3%	9%	-	-	1.3%	1.8%	1.5%

* includes 122 males and 40 females at hospitals

MASS X-RAY SERVICE 1965

[illegible]

NOT PREVIOUSLY X-RAYED (included in above)

[illegible]

* includes 841 males and 576 females at Collages,hospitals etc.

NON-TUBERCULOSIS CASES FOUND

1964

1965

	Male	Female	Male	Female
Fatty deposits	-	-	1	-
Carcinoma of bronchus	1	1	2	-
Sarcoidosis	-	-	1	1
Pneumonitis	10	-	7	2
Bronchiectasis	-	-	2	2
Benign pleural fibroma (removed)	-	1	-	-
Atelectosis from chicken bone in bronchus	-	-	1	-
Hiatus Hernia	-	-	1	1
Substernal goitre	1	-	-	-
Large left hilar vessel	-	-	1	-
Chronic bronchitis	-	-	1	1
Refused investigation	1	-	-	-
Pulmonary fibrosis	3	-	-	1
Achalasia of cardia	-	-	1	-
Eventration of R.diaphragm	-	-	-	1

TABLE IX - TUBERCULOSIS
(d) RESPIRATORY(continued)

Dartford R.D.

DEATHS OF PERSONS SUFFERING FROM TUBERCULOSIS

Persons removed from the tuberculosis register in 1964 and 1965 following death:

Year born (males)	Year notified	Cause of death 1964		Year died	Infectious when diagnosed
		Underlying	Contributory		
1885	1964	1a.Cor pulmonale b.Chronic bronchitis	-	1964	?
1890	1949	1a.Ven.fibrillation b.Myocardial degeneration	Chronic pul. tuberculosis	1964	yes
1890*	1964	1a.Miliary tuberculosis	-	1964	?
1894	1956	1a.Resp.failure b.Chronic bilateral tuberculosis	Severe Mental subnormality	1963(Dec 31)	yes
1926	1947	1a.Shock & haemorrhage b.Bilateral pulmonary tuberculosis with cavitation	-	1964	yes
(females)					
1888	1952	1a.Myocardial failure b.Cerebral thrombosis	Pulmonary tuberculosis (healed 1952)	1964	?
1965					
(males)					
1887	1960	1a.Chronic bronchitis and emphysema	Pulmonary tuberculosis	1965	?
1888	1963	1a.Conj.cardiac failure b.Chron.cor pulmonale c.Chron.bronchitis	-	1965	?
1889	1961	1a.Carcinoma bronchus	Cor.pulmonale Chron.bronchitis & emphysema	1965	yes
1900**	1943	1a.Heart failure b.Myocardial infarction c.Coronary thrombosis	-	1965	yes
1907	1965	1a.Secondary carcinomatosis b.Primary carcinoma of bronchus	Pul.tuberculosis	1965	?
(female)					
1902	1945	1a.Myocardial failure b.Cor pulmonale c.Pulmonary fibrosis. Old tuberculosis	-	1965	?
1908	1955	1a.Pulmonary tuberculosis	-	1965	?
* Should have been on non-respiratory register.					
** Though resident here died at Preston Hall and assigned to Mallings Rural District.					
Deaths from respiratory tuberculosis of persons (i) not on tuberculosis register					
1890	-	1a.Bronchopneumonia b.Pulmonary fibrosis & emphysema c.Healed pulmonary tuberculosis		1964	?
(ii) On register but name not removed until 1966					
1908	1939	1a.Cor pulmonale b.Pulmonary fibrosis c.Tuberculosis	-	1965	?

TABLE X - VACCINATIONS Dartford R.D.

Virus Diseases

(a) POLIOMYELITIS

For the years 1957 to 1960 the figures provided by County Hall for vaccination against poliomyelitis for each year gave the number of persons born in each of stated years who had received vaccination in each year under review. When we had figures in this detail we could assemble them in a way which demonstrated the size and pattern of the immunity barrier ready to oppose the spread of poliomyelitis. For 1961 the figures we received related to persons in age groups each of several years of birth. For 1962 similar groupings were also used but the groupings of years of birth were slightly different. For 1963 the groupings were the same as 1962 and we were able to manage the figures concisely enough for example to give the following in our 1963 report:-

Percentage of young population vaccinated 1959-63

Born	Estimated population	No.had 2nd dose	% of population	Total* 3rd dose	% of population
1957-63	7253	4730	65%	5432	75%
1943-56	8208	1762	21%	7636	92%
1943-63	15461	6492	42%	12968	84%

* For footnote see 1963 report, it explains why more 3rd doses than 2nd doses.

The figures for this current report were provided in yet a different form. For 1964 they were in age groups which differed from those of 1963 and the figures for 1965 not only differed in their age groups from those of 1964 but in addition were limited to age groups under sixteen years of age.

The above difficulties explain some of the short comings in the presentation of the figures that follow:

Completed courses of primary vaccination (3 doses or equivalent) Dartford R.D.

Vacc. Previous years	Vac. 1961	Born in year	Vaccinated					Est.pop. 1965	% immune Dec.31 1965 Dartford R.D.	England & Wales
			1962	1963	1964	1965	1962-65			
Not born		1965	Not born			217	217	1159	19%	?
"	"	1964	"	"	210	814	1024	1179	87%	65%
"	"	1963	"	178	793	63	1034	1183	87%	71%
"	"	1962	130	743	104	27	1004	1168	86%	71%
11937	3120	1961	792	139	59	1094	990+	1142	87%+	
		Previous years	2462	210	1025		4791-			

* born 1949-1961

TABLE X - VACCINATIONS (continued)
(a) POLIOMYELITIS (continued)

Completed course of 4 doses.

Dartford R.D.

1961

1962

1963

Age group	Completed 4 doses	Age group	Completed 4 doses	Age group	Completed 4 doses
"School children aged under 12 years"	3257	"Born 1943 to 1956	597*	"Aged between 5 & 12 years"	569 *

1964		1965	
Age group	Completed 4 doses	Age group	Completed 4 doses
Born 1964	-	Born 1965	1
1963	7	" 1964	2
1962	1	" 1963	-
1961	1	" 1962	-
" 1949-60	896*	" 1958-61	838*)
" 1933-48	-	" 1949-57	184*) 1022

*When dead vaccine had been previously given by injection 4th doses by injection or by oral route were given around the year of school entry. Most of these latter doses must therefore have been given at ages from 5 to 8. By 1965 the practice followed was to give three oral doses in infancy followed by a fourth oral dose on starting school.

Percentage of children aged 5 - 11 who have had 4 doses

(a) Year	(b) Birth years	(c) Est. Pop	(d) No. with 4th dose	School leavers (e) Birth years	(f) Pop.	(g) School leavers immune 3257/4062 = 80%(f)	(h) Col. (d) cumu- lative	(i) Col. (g) cumu- lative	(j) No. with 4th dose at end of year (h)-(i)	(k) % with 4th dose at end of year j/c x 100
1961	1950-56	4062	3257	1950	528	422	3257	422	2835	70%
1962	1951-57	4361	597	1951	563	450	3854	872	2982	68%
1963	1952-58	4718	569	1952	497	398	4423	1270	3153	67%
1964	1953-59	5819	896	1953	532	426	5319	1696	3623	70%
1965	1954-60	5660	1022	1954	574	459	6341	2155	4186	74%

The above table contains assumptions and estimates the rough nature of which only justify figures to the nearest hundred. The figures are not so rounded off in order that the origin of certain figures can thereby be discerned. The school population is underestimated as it takes no account of the incoming pupils and consequently the % immune is overestimated.

TABLE X - VACCINATIONS (continued)

(b) SMALLPOX

NUMBERS VACCINATED AND REVACCINATED by age at date of Vaccination. Dartford R.D.

Year	Under 1 year	1 year	Vaccinated			Total
			2 - 4	5 - 15	15 or over	
1965	?	830	?	?	?	?
1964	?	782	?	?	?	?
1963	?	217	?	?	?	?
1962	876	106	187	574	776	2519
1961	702	50	27	20	21	820
1960	?	?	?	?	?	?
1959	646	44		12	13	735
1958	447	29		4	12	492

Year	Under 1 year	1 year	Revaccinated			Total
			2 - 4	5 - 15	15 or over	
1965	?	?	?	—*	?	?
1964	?	?	?	—*	?	?
1963	?	?	?	2*	?	?
1962	-	10	98	886	1838	2832
1961	-	-	2	4	3	9
1960	?	?	?	?	?	?
1959	-	2		4	7	11
1958	-	2		14	13	29

* Age 5 - 7 years

INFANT VACCINATION RATE: Up to the end of 1961 most infants who were vaccinated were vaccinated in the first year of life but in 1962 more infants than in former years were vaccinated at a later age. In 1963 the second year of life was advocated as an age for vaccination. The percentage of the number of births in a given year of those vaccinated while under one year of age in that year is used here as a vaccination rate up to 1962.

	Number of live births	Number vaccinated under 1 year	Percentage of births of those vaccinated
1965	1172	?	?
1964	1199	?	?
1963	1203	?	?
1962	1187	876	74%
1961	1159	702	61%

SECOND YEAR VACCINATION RATE: With practice changing to vaccination in the second year of life the County no longer record vaccinations at ages under 1 year, consequently the expedient rate is now the vaccinations done as a percentage of infants surviving to the age of one year.

	Infants aged 1 year in January	Vaccinations done at age 12 - 23 months	Percentage
1965	1179	830	71%
1964	1183	782	66%
1963	1168	217	19%
1962	1142	106	9%
1961	1045	50	5%

SCHOOL CHILD IMMUNITY DECEMBER 1965: When records of vaccination and revaccination of all young age groups were available it was feasible to make an estimate of school child immunity. Records are now incomplete and this is no longer feasible. However, vaccination and revaccination of children of school age is now minimal and the immunity is mainly that from the vaccinations and revaccinations done on 1962 when smallpox was in the country. Our 1963 report estimated 1446 or 23% of those born 1949-58 to have this legacy in Dec. 1963. 537 and 528 = 1065 left this age group by Dec. 1965 i.e. 23% 1065 = 245 left who were immune therefore 1446 - 245 = 1201 with immunity remaining. The 5-14 population Dec. 1965 was 7294. Thus roughly $1201/7294 \times 100 = 18\%$ of school children had immunity in Dec. 1965.

TABLE X - VACCINATIONS (continued)

Bacterial Diseases

(c) DIPHTHERIA

NUMBER VACCINATED

Dartford Rural District

	Age at 31st December	Primary inoculations done in the year	Reinforcing inoculations done in the year
1965	0 - 4 years	1112	930
	5 - 7 years	9	682
	8 - 16 years	3	11
1964	0 - 4 years	926	964
	5 - 9 years	10	562
	10 - 14 years	-	5
1963	0 - 4 years	1047	834
	5 - 9 years	2	454
	10 - 14 years	1	6
1962	0 - 4 years	975	509
	5 - 9 years	27	363
	10 - 14 years	4	6

PRIMARY VACCINATIONS 0 - 4 years December 1964

Born	Vaccinated in year ending December 31st						Estimated population Dec. 1964
	1960	1961	1962	1963	1964	1960-64	
1964	-	-	-	-	456	456	1179
1963	-	-	-	514	414	928	1183
1962	-	-	430	513	29	972	1168
1961	-	453	516	13	22	1004	1142
1960	412	506	18	5	5	946	1045
Total vaccinated	412	959	964	1045	926	4306	5717
	7%	17%	17%	18%	16%	75%	100%

PERCENTAGE 1964 0 - 4 POPULATION VACCINATED

Born	1960	1961	1962	1963	1964	1960-64	Est. pop.
1964	-	-	-	-	39%	39%	100%
1963	-	-	-	43%	35%	78%	100%
1962	-	-	37%	44%	2%	83%	100%
1961	-	40%	45%	1%	2%	88%	100%
1960	39%	48%	2%	0%	0%	90%	100%

REINFORCING VACCINATIONS 0 - 4 years by December 31st 1964

Born	Revaccinated in years						Estimated population
	1960	1961	1962	1963	1964	1960-64	
1964	-	-	-	-	-	-	1179
1963	-	-	-	-	18	18	1183
1962	-	-	-	9	591	600	1168
1961	-	-	10	524	230	764	1142
1960	2	17	324	195	125	663	1045
Total re-vacc.	2	17	334	728	964	2045	5717

PERCENTAGE 1964 0 - 4 POPULATION REVACCINATED

Born	1960	1961	1962	1963	1964	1960-64	Est. pop.
1964	-	-	-	-	-	-	100%
1963	-	-	-	-	2%	2%	100%
1962	-	-	-	1%	51%	52%	100%
1961	-	-	1%	46%	20%	67%	100%
1960	0%	2%	31%	19%	12%	63%	100%
Total re-vacc.	0%	0%	6%	13%	17%	36%	100%

TABLE X - VACCINATIONS (continued)

(c) DIPHTHERIA

PRIMARY VACCINATIONS 0 - 4 years December 1965

Dartford Rural District

Born	Vaccinated in year ending December 31st						Estimated population Dec.1965
	1961	1962	1963	1964	1965	1961- 65	
1965	-	-	-	-	500	500	1159
1964	-	-	-	456	574	1030	1179
1963	-	-	514	414	18	946	1183
1962	-	430	513	29	9	981	1168
1961	453	516	13	22	11	1015	1142
Total vaccinated	453	946	1040	921	1112	4472	5831

PERCENTAGE 1965 0 - 4 years POPULATION VACCINATED

Born	1961	1962	1963	1964	1965	1961 - 65	Est.pop
1965	-	-	-	-	43%	43%	100%
1964	-	-	-	39%	49%	87%	100%
1963	-	-	43%	35%	1%	79%	100%
1962	-	40%	44%	2%	0%	83%	100%
1961	42%	45%	0%	1%	0%	88%	100%
Total vaccinated	8%	16%	19%	16%	19%	80%	100%

REINFORCING VACCINATIONS 0 - 4 years by December 31st 1965

Born	Revaccinated in years						Est. pop.
	1961	1962	1963	1964	1965	1961 - 65	
1965	-	-	-	-	-	-	1159
1964	-	-	-	-	18	18	1179
1963	-	-	-	18	656	674	1183
1962	-	-	9	591	169	769	1168
1961	-	10	524	230	87	851	1142
Total re-vacc.	-	10	533	839	930	2312	5831

PERCENTAGE 1965 0 - 4 years POPULATION REVACCINATED

Born	1961	1962	1963	1964	1965	1961 - 65	Est. pop.
1965	-	-	-	-	-	-	100%
1964	-	-	-	-	2%	2%	100%
1963	-	-	-	2%	55%	57%	100%
1962	-	-	1%	51%	14%	66%	100%
1961	-	1%	46%	20%	8%	75%	100%
Total re-vacc.	-	0%	9%	14%	16%	39%	100%

TABLE X - VACCINATIONS (continued)

(d) WHOOPING COUGH

NUMBER VACCINATED

Dartford Rural District

	Age at 31st December	Primary inoculations done in the year	Reinforcing inoculations done in the year
1965	0 - 4 years	1100	873
	5 - 7 years	8	464
	8 - 16 years	3	11
1964	0 - 4 years	1004	?
	5 - 9 years	4	?
	10 - 14 years	-	?
1963	5 - 9 years	1018	?
	10 - 14 years	1	?
1962	0 - 4 years	953	?
	5 - 9 years	6	?
	10 - 14 years	-	?

PRIMARY VACCINATIONS 0 - 4 years December 1964

Born	Vaccinated in year ending December 31st						Estimated population Dec. 1964
	1960	1961	1962	1963	1964	1960 - 64	
1964	-	-	-	-	451	451	1179
1963	-	-	-	509	501	1010	1183
1962	-	-	425	496	26	947	1168
1961	-	452	506	9	21	988	1142
1960	413	499	14	3	5	934	1045
Total vaccinated	413	951	945	1017	1004	4330	5717

PERCENTAGE 1964 0 - 4 POPULATION VACCINATED

Born	1960	1961	1962	1963	1964	1960 - 64	Estimated population
1964	-	-	-	-	38%	38%	100%
1963	-	-	-	43%	42%	85%	100%
1962	-	-	36%	43%	2%	81%	100%
1961	-	40%	44%	1%	2%	86%	100%
1960	40%	48%	1%	0%	0%	89%	100%
Total vaccinated	7%	17%	17%	18%	18%	76%	100%

PRIMARY VACCINATIONS 0 - 4 years December 1965

Born	Vaccinated in year ending December 31st						Estimated population Dec. 1965
	1961	1962	1963	1964	1965	1961 - 65	
1965	-	-	-	-	495	495	1159
1964	-	-	-	451	573	1024	1179
1963	-	-	509	501	16	1026	1183
1962	-	425	496	26	8	955	1168
1961	452	506	9	21	8	906	1142
Total vaccinated	452	931	1014	999	1100	4496	5831

PERCENTAGE 1965 0 - 4 POPULATION VACCINATED

Born	1961	1962	1963	1964	1965	1961 - 65	Estimated population
1965	-	-	-	-	43%	43%	100%
1964	-	-	-	38%	48%	87%	100%
1963	-	-	43%	42%	1%	87%	100%
1962	-	36%	43%	2%	1%	82%	100%
1961	40%	44%	1%	2%	1%	87%	100%
Total vaccinated	8%	16%	17%	17%	19%	77%	100%

TABLE X - VACCINATIONS (continued)

(d) WHOOPING COUGH (continued)

COMPARISON WITH OTHER AREAS

	Dartford R.D.	Dartford Borough	Northfleet U.D.	Kent A. C.
Percentage of estimated population born 1964 vaccinated in 1964 & 1965	87%	93%	90%	66% "of eligible children"

(e) TETANUS

1965 is the first year for which we have figures for tetanus vaccination.

Age 31st December	Primary vaccinations done in year	Reinforcing vaccinations done in year
0 - 4 years	1112	930
5 - 7 years	9	682
8 - 16 years	3	11

In view of the introduction of the combined vaccine in 1960 the numbers of primary vaccinations against tetanus in years 1960-64 can be assumed to be almost identical with those of diphtheria vaccination.

(f) TUBERCULOSIS

Children in close contact with patients suffering from tuberculosis are, if necessary, vaccinated with B.C.G. The following vaccinations were carried out at the Chest Clinic, Dartford:-

	Children under 15 years of age						
	1959	1960	1961	1962	1963	1964	1965
Dartford R.D.	160	139	131	184	119	120	131
Dartford Borough	133	126	126	129	101	93	126

Some persons attend other clinics and therefore, these figures are incomplete.

Vaccination of school children is carried out by the School Health services. These children are skin tested and those who do not react are vaccinated. Those who do react are referred to the Chest Physician for further investigation. Figures are not available for the Rural District.

Total number of persons vaccinated with B.C.G. at Dartford Chest Clinic including residents elsewhere and hospital staff:-

1959	1960	1961	1962	1963	1964	1965
676	668	619	670	564	592	595

VACCINATIONS (continued)

COMPARISON WITH OTHER AREAS

	Dartford M.B.	Dartford R.D.	Northfleet U.D.	Kent C.C.	England & Wales
POLIOMYELITIS					
Primary vaccination Born 1964 and vaccinated 1964 or 1965	91%	87%	80%	81% "eligible children"	65%
Reinforcing vaccinations Born 1954-60 and had 4th dose by December 1965	61%	74%	59%	71% "eligible children"	?
SMALLPOX					
Primary vaccination Aged 13-23 months vaccinated in 1965	56%	71%	65%	61% "eligible children"	33%
Revaccination School children revaccinated 1965 as % of school entrants	0%	0%	0%	?	3%
DIPHTHERIA					
Primary vaccination Born 1964 vaccinated in 1964 or 1965	94%	87%	93%	66% "eligible children"	?
Reinforcing vaccination Born 1961 and reinforcing vaccination by 1965	56%	75%*	56%	?	?
"% total number of 0-4 age group who have completed primary vacc. within last 5 years"by December 1965.	Pop.4060 Vacc.3293 %= 81%	Pop.5831 Vac.4472 %=80%	Pop.2367 Vac.1824 %=77%	?	Pop.4113000 Vac. ? %=56%

With the prevailing use of triple vaccine comparisons for whooping cough and tetanus vaccination can be assumed to be similar to the above.

* The population estimate does not include an estimate for the balance of migration and thus is an underestimate which makes above percentage an overestimate.

TABLE XI- INJURY
(a) ACCIDENTS ON THE ROAD

Casualties (not necessarily R.D. residents) on local roads (Chief Constable's analysis).

Local Authority	Total injury accidents		Killed		Seriously injured		Slightly injured		Total	
	1964	1965	1964	1965	1964	1965	1964	1965	1964	1965
Dartford R.D.	329	332	18	15	145	115	344	332	507	462
Northfleet U.D.	130	133	3	2	55	42	140	124	198	168
Swanscombe U.D.	81	60	1	4	23	40	92	54	116	98
Dartford M.B.	336	305	9	6	115	93	311	302	435	401

Deaths of R.D. residents not necessarily on R.D. roads.

1964

			<u>Place of accident</u>
2 years	M	Fell beneath moving ice-cream van	Sutton-at-Hone
13 years	F	Pedal cyclist/lorry turning left	?
14 years	M	Passenger in car which ran off road	?
17 years	M	Motorcycle/van	Main Road, Sutton-at-Hone
29 years	M	Passenger in car which struck tree	(West Kingsdown
29 years	M	Passenger in car which struck tree	(travelling from Brands Hatch)
29 years	F	Motorcar/lorry	A.1.road near Eaton Socon
41 years	M	Pillion passenger/car	?
49 years	M	Passenger in car	?
51 years	F	Pedestrian/petrol tanker	London Road, Stone
51 years	M	Motorcar/van	?
66 years	M	Fell in front of lorry	Albert Dock.E.16 (Long-stay hospital patient)
70 years	F	Pedestrian/lorry	?
72 years	F	Struck by car-crossing road	?
82 years	M	Road accident a contributory cause	Farningham

1965

9 years	M	Ran in front of car on way to school	London Rd/Hever Rd.WKingsdown
41 years	M	Motor van/lorry	?(Long-stay hospital patient)
52 years	M	Struck by car	Dartford A.2.(Long-stay hospital patient)

International classification of injuries

External cause of injury

1964	1965
E 812.0	E 812.4
E 813.0	E 816.0
E 823.4	E 812.4
E 815.1	
E 823.4	
E 823.4	
E 816.1	
E 815.4	
E 823.4	
E 816.1	
E 812.1	
E 812.1	
E 812.0	
E 812.4	
E 812.9	

Nature of injury

1964	1965
N 807	N 803
N 803	N 996.8
N 803	N 803
N 803	
N 996.8	
N 996.8	
N 996.8	
N 803	
N 996.8	
N 863	
N 804	
N 869	
N 996.7	
N 806	
N 996.9	

TABLE XI - INJURY (continued)
(b) ACCIDENTS IN THE HOME

Persons receiving in-patient treatment at the Dartford Group of Hospitals:

Age	Falls		Burns & Scalds		Poisoning		Other		Total	
	1964	1965	1964	1965	1964	1965	1964	1965	1964	1965
0-4	2	3	1	-	1	-	2	3	6	6
5-64	3	2	1	-	2	-	4	-	10	2
65+	9*	9	-	-	-	-	-	-	9	9
	14	14	2	-	3	-	6	3	25	17

Length of stay in hospital in weeks *Two died from coronary disease while in hospital

	Under 1 week		1-	2-	3-	4-	8-	12-	13+	Cases
1964	8		1	5	1	1	5	4	-	25
1965	7		2	2	1	3	-	-	2	17

Persons receiving in-patient treatment at Queen Mary's Hospital, Sidcup:

Age	Falls		Burns & Scalds		Poisoning		Other(+?)		Total	
	1964	1965	1964	1965	1964	1965	1964	1965	1964	1965
0-4	-	1	1	-	1	-	-	2	2	3
5-64	1	1	-	-	3	1	-	-	4	2
65+	2	1	-	-	-	-	-	-	2	1
	3	3	1	-	4	1	-	2	8	6

Length of stay in hospital in weeks

	Under 1 week		1-	2-	3-	4-	8-	12-	13+	Cases
1964	5		1	-	-	-	1	1	-	8
1965	4		1	1	-	-	-	-	-	6

Persons receiving out-patient treatment at Queen Mary's Hospital, Sidcup:

Age	Falls		Burns & Scalds		Poisoning		Other (+?)		Total	
	1964	1965	1964	1965	1964	1965	1964	1965	1964	1965
0-4	5	2	-	-	-	-	4	4	9	6
5-64	1	-	2	-	-	-	14	19	17	19
65+	-	-	-	-	-	-	-	1	-	1
	6	2	2	-	-	-	18	24	26	26

In 1964 and 1965 no patients were admitted to the Gravesend and North Kent Hospital as a result of accidents in the home in this district.

Deaths from accidents in the home:

Year	Age	Cause	Int.Class.Dis.Categories	
1964	40	Electrocution	E914.0	N992
	78	Fall	E903.0	N820
1965	78	Chronic phenacetin poisoning	E874.0	N974
	81	Fall	E903.0	N860

England & Wales (includes residential institutions)

	Under 15		Over 15		All ages	
	1964	1965	1964	1965	1964	1965
Poisoning	69	50	1410	1333	1479	1383
Falls	75	68	3901	3854	3976	3922
Burns & Scalds	187	203	580	548	767	751
Others	545	534	393	427	938	961
Total	876	855	6284	6162	7160	7017

TABLE XI - INJURY (continued)

(c) ACCIDENTS AT WORK

The only source of information available to us is the death register.
The following were the deaths to residents of this district from this cause.

Year	Age	Sex	Occupation	Cause	I.C.D. Categories	
1964	44	M	Fitter	Fall through roof	E902.3	N803
1964	58	M	Merchant seaman (Scotland)	Drowning	E851	N990
1965	48	M	Turbine operator	Fall from crane walkway	E902.3	N809

(d) OTHER ACCIDENTS

1964	27	M	Long-stay patient	Drowning) Due to Epilepsy) astrocytoma	E929	N990
1964	72	F	Long-stay patient	Asphyxia impaction of food whilst eating	E921	N933
1964	93	M	Retired packer	Fat embolism fracture. Fall on level(place unknown)	E903.7	N821
1965	4	F	Long-stay patient	Asphyxia Epilepsy Encephelitis after old immunisation elsewhere	E944	N997

(e) SUICIDE

1964	49	F		Strangulation	E974	N991 *
1964	56	M		Train injury	E979	N906
1965	34	M		CO poisoning	E973	N968
1965	74	M		CO poisoning	E973	N968
1965	45	M		Hanging	E974	N991 *
1965	74	F		Barbiturate poisoning	E970	N971

* long stay hospital

(f) HOMICIDE

1965	31	F		Wounds	E982	N861
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ENVIRONMENTAL MATTERS

APPENDIX I - HOUSING

NEW HOUSES: The following dwellings have been completed in the last five years:

	1961	1962	1963	1964	1965
By Dartford Rural District Council	154	137	108	89	227
By private enterprise	<u>513</u>	<u>269</u>	<u>301</u>	<u>382</u>	<u>495</u>
	<u>667</u>	<u>406</u>	<u>409</u>	<u>471</u>	<u>722</u>

HOUSING PROVIDED BY COUNCIL: the effective waiting list of housing applicants at the end of March 1964 and March 1965 numbered 1302 and 1273 respectively (inclusive of engaged couples). The total registered applications for the year ending March 1964 was 1562 and for the year ending March 1965 was 1510. The difference between the effective and total list is due to applicants rehoused or applications cancelled. The number of families rehoused during the last three years have been as follows:-

	<u>Families rehoused</u>		
	April-March 1963-64	April-March 1964-65	April-March 1965-66
Ash-cum-Ridley	4	2	8
Fawkham	3	2	3
Hartley	6	3	2
West Kingsdown	12	22	10
Longfield	6	2	9
Southfleet	5	7	7
Betsham	3	3	1
Bean	1	-	10
Darenth	2	16	16
Stone	15	42	47
Eynsford	1	9	2
Farningham	3	6	3
Horton Kirby	4	3	8
South Darenth	5	6	5
Sutton-at-Hone	6	1	3
Swanley	47	47	49
Crockenhill	9	6	6
Hextable	6	7	4
Wilmington	15	10	8
Hawley	6	5	4
Outside Rural District	<u>30</u>	<u>39</u>	<u>18</u>
	<u>189</u>	<u>238</u>	<u>223</u>

During the above three years 188, 159 and 180 Council tenants were moved to accommodation more suited to their requirements.

HOUSING PRIORITY ON MEDICAL GROUNDS:

<u>Tuberculosis</u>				<u>Other than Tuberculosis</u>			
No. of applications for Council accom.	No. of Points 0	No. of Points 1-5	No. of Points 6-10	No. of applications for Council accom.	No. of Points 0	No. of Points 1 - 5	No. of Points 6-10
1964	6	-	6	-	70	16	54
1965	4	-	4	-	67	15	52
App. for transfer from Council tenants							
1964	-	-	-	-	21	2	19
1965	-	-	-	-	20	4	16

Number rehoused after being awarded some degree of medical priority:

	<u>Tuberculosis</u>	<u>Other than Tuberculosis</u>
1964	2	53
1965	3	71

APPENDIX I - HOUSING (continued)

IMPROVEMENT GRANTS APPLIED FOR:

	1964	1965
Applications for discretionary grants	7	1
Number of houses	14	1
Applications for standard grants	69	103
Number of houses	69	103
Total cost of discretionary grants approved (7 houses)	£1,497	Nil
Total cost of standard grants approved	£11,328	£21,707

IMPROVEMENT WORK COMPLETED:

Standard grants	Total cost of amenities	£23,055	£30,703
	Total amount of grants	£6,713	£10,076
		(55 houses)	(56 houses)
Discretionary grants	ditto	£750	£1,497
		(3 houses)	(7 houses)

UNFIT HOUSES MADE FIT:

	By Owner		By Local Authority	
	1964	1965	1964	1965
After informal action by local authority	59	43	-	-
After formal notice under (a) Public Health Acts	17	4	-	-
(b) Section 24 Housing Act 1957	-	-	-	-

REPAIRS:

The following are the details of repairs initiated by the Council's Public Health Inspectors:

	1964	1965
Water pipes repaired	5	1
Yard paving repaired	10	2
Floors repaired	8	7
Roofs repaired, overhauled and made weatherproof	32	17
Wall plaster and ceiling plaster repaired	46	28
Windows repaired including sashcords	35	15
Rainwater pipes and gutters repaired or renewed	16	9
Damp proof courses provided	9	5
External rendering to walls and pointing	17	1
Chimney stacks and pots	15	3
Sub-floor ventilation improved	1	1
New sinks provided	2	-
Sink wastepipes repaired or renewed	1	-
Flushing cisterns renewed or repaired	7	1
Soil and ventilating pipes repaired	2	-
Water closet pans renewed	3	4
Houses provided with new dustbins	4	-
Other defects	73	25

Visits paid by the Council's Public Health Inspectors 3710 4636

RENT ACT, 1957: The following certificates have been received and issued:-

Applications received for Certificates of Disrepair	3	Nil
Notices issued to landlords (Form J)	4	-
Undertakings received from landlords (Form K)	2	-
Certificates of Disrepair issued	1	-
Applications received for cancellation of Certificates of Disrepair (Form M)	-	-
Certificates of disrepair cancelled	-	-
Certificates issued as to remedying defects (Form P)	-	-

Visits paid by the Council's Public Health Inspectors 7 -

APPENDIX I - HOUSING (Continued)

HOUSES DEMOLISHED - HOUSING ACT,1957

	1964	1965
In Clearance Areas: (Housing Act,1957)		
Houses unfit	Nil	Nil
Not in Clearance Areas:		
As a result of action under section 17	13	7
Unfit Houses Closed:		
Under sections 16 & 17 etc.	3	4

ADDRESSES OF HOUSES DEMOLISHED OR CLOSED:

1964	1965
4,6,8,10, Hook Green,Wilmington	Hut, Reynolds Place Farm,
5 & 6, Green Bungalows, Hulbury	Beacon Cafe, London Rd. W.Kingsdown
Ivy Cottage,Fawkham Rd. West Kingsdown	198-200 & 202,Hawley Rd.Wilmington
The Hut, Stack Lane, Wilmington	1 & 2, Turners Oak, West Yoke
1 & 2, Hill Barn Cottages,Fawkham	2, Rose Farm Cottages, Ash
Blackshole Farm Cott,Watling St,Darenth	Ivanhoe Cottage, Ash
Thatched Bungalow,Green St.Green, Darenth	Corner Cottage, Ash
17a,Broad Lane,Wilmington	2, Vineyard Cottages, Ash
1 &2, Green Bungalows, Hulbury	
23, Invicta Road, Stone	

DEMOLITION AND CLOSING ORDERS MADE:

	1964	1965
Number of demolition orders issued	13	11
Number of closing orders issued	1	2
Number of undertakings not to be used for habitation	Nil	1

PERSONS DISPLACED:

	1964		1965	
	Persons	Families	Persons	Families
In Clearance Areas:				
Houses unfit	Nil	Nil	4	1
Not in Clearance Areas:				
As a result of action under Sec.17	22	7	32	10

CARAVANS:

	1964	1965
The number of sites licensed under the Act	33	31
The total number of caravans permitted by licence on these sites	321	280
Visits paid by the Council's Public Health Inspectors	96	113

APPENDIX II- WATER

GATHERING GROUND. The chalk below this district is part of the gathering ground for N.W.Kent. The wells of the Metropolitan Water Board, Mid Kent Water Company and the Medway Water Board draw water from here to supply this and neighbouring districts. The Lullingstone estate has a small supply of its own. One hospital has its own supply which is supplemented with Met. water. Certain factories have their own wells for industrial purposes.

ACCESSIBILITY OF SUPPLY. With a few exceptions, all dwellings have water piped into them from these sources and the quantity is abundant.

QUALITY. Apart from two dwellings on their own domestic supplies, the quality of water supplied generally is excellent.

SOURCES OF SUPPLY AND ACCESSIBILITY

Piped supplies into houses. The estimated position was as follows:-

	Parish	Houses		Totals
		31.3.65	31.3.66	
Metropolitan Water Board	Darenth	1084	1172	
	Crockenhill	466	481	
	Eynsford	552	554	
	Farningham	448	446	
	Horton Kirby	743	750	
	Southfleet	392	434	
	Stone	2266	2382	
	Sutton-at-Hone	1189	1199	
	Swanley	4171	4442	
	Wilmington	<u>2305</u>	<u>2320</u>	14190
			13,616	
Mid Kent Water Company	Ash	312	309	
	Fawkham	178	182	
	Hartley	936	968	
	Longfield	625	713	
	Southfleet	201	201	
	West Kingsdown	<u>1108</u>	<u>1116</u>	3489
			3,360	
Lullingstone Estate	Eynsford	65	65	
Houses on supply of Darenth				
Park Hospital	Darenth	8	8	
1 House supplied by laundry well				
Barn End Lane	Wilmington	1	1	
1 House supplied by well at				
A.P.C.M. Clay Pit, Bean	Stone	<u>1</u>	<u>1</u>	75
			75	
<u>Supplies not piped into houses</u>				
Domestic well, Clement Street	Sutton-at-Hone	1	1	
Rainwater tanks	West Kingsdown	1	1	
	Darenth	1	1	
	Farningham	2	2	
Transported water				
Standpipe (Met.W.B.)	Horton Kirby	<u>1</u>	<u>1</u>	6
			6	
		<u>Totals</u>	17057	17760

Piped supplies into hospitals

Metropolitan Water Board	Stone	Stone House Hospital (Population 500)
Metropolitan Water Board and Hospital well (M.W.B. supply not in use after September 1965)	Darenth	Darenth Park and Mabledon Hospitals (Population 2250)

APPENDIX II - WATER (continued)

QUALITY

Bacteriological Analyses

Sampling by Water Undertakers

1964

	No. of samples	E.coli 1 in 100 ml.
Metropolitan Water Board		
Raw water	2241	see table
Treated water	1942	none
Medway Water Board		
Raw water	96	see table
Treated water	96	none
Mid Kent Water Company		
Raw water	9	one sample contained 1
Treated water: from Pumping Station	2	none
District supplied by Hartley	16	none

Medway Water Board

Raw water

No. of results showing stated count

Probable No. per 100 ml.	None	1-9	10-19	20-29	30-39	40-49	50-89	90-100	180+	Samples
Coliform	73	20	2	none	1	none	none	none	none	96
E.coli 1 type 1	79	16	none	1	none	none	none	none	none	96

Metropolitan Water Board

Raw water

Yearly averages

Well	No. of samples	Plate count per ml.		Coliform count		Escherichia coli count	
		20-24 hours at 37°C.	3 days at 22°C.	% samples negative in 100 ml.	count per 100 ml.	% samples negative in 100 ml.	Count per 100ml.
Darenth	251	0.2	6	98.80	-	98.80	-
Dartford	249	0.7	20	100.0	-	100.0	-
Eynsford No.1	202	0.5	23	68.81	1.7	99.50	-
Eynsford No.2	209	0.1	2	99.04	-	100.0	-
Green St.Green No.1	152	0.1	4	95.39	0.1	98.03	-
Green St.Green No.2	99	0.5	13	95.95	0.1	96.97	0.1
Horton Kirby No.1	172	0.1	14	95.35	0.1	98.26	-
Horton Kirby No.2	213	1.4	6	99.06	-	99.06	-
Lullingstone No.1	143	2.3	13	100.0	-	100.0	-
Lullingstone No.2	116	0.5	22	100.0	-	100.0	-
Southfleet	247	0.1	4	100.0	-	100.0	-
Wilmington No.1	61	0.1	114	100.0	-	100.0	-
Wilmington No.2	127	0.2	141	97.64	0.1	99.21	-

APPENDIX II - WATER (continued)

QUALITY

Bacteriological Analyses

Sampling by Water Undertakers

1965

	<u>No. of samples</u>	<u>E.coli 1 in 100 ml.</u>
Metropolitan Water Board		
Raw water	2156	see table
Treated water	1938	none
Medway Water Board		
Raw water	95	see table
Treated water	95	none
Mid Kent Water Company		
Raw water	11	3 samples contained 1
Treated water: from Pumping Station	7	none
District supplied by Hartley	12	none

Medway Water Board

Raw water

No. of results showing stated count

Probable No. per 100 ml.	None	1-9	10-19	20-29	30-39	40-49	50-89	90-100	180+	Samples
Coliform	68	24	2	1	none	none	none	none	none	95
E.coli type 1	78	16	none	1	none	none	none	none	none	95

Metropolitan Water Board

Raw water

Yearly averages

Well	No. of samples	Plate count per ml.		Coliform count		Escherichia coli count	
		20-24 hours at 37°C.	3 days at 22°C.	% samples negative in 100ml.	count per 100 ml.	% samples negative in 100ml.	count per 100 ml.
Darenth	251	0.1	4	100.0	-	100.0	-
Dartford	205	0.0	2	99.02	-	99.51	-
Eynsford No.1	191	0.2	10	53.40	3.7	99.48	-
Eynsford No.2	123	0.0	1	96.75	0.1	99.19	-
Green St.Green No.1	228	0.7	6	90.79	1.1	93.86	0.4
Green St.Green No.2	18	0.0	0	83.33	0.2	88.89	0.1
Horton Kirby No.1	189	0.0	11	93.12	0.2	96.83	-
Horton Kirby No.2	237	0.2	3	96.20	0.4	97.89	0.1
Lullingstone No.1	130	0.0	1	100.0	-	100.0	-
Lullingstone No.2	120	0.2	3	99.17	-	99.17	-
Southfleet	245	0.0	2	99.18	-	100.0	-
Wilmington No.1	51	0.1	4	96.08	-	96.08	-
Wilmington No.2	168	0.7	14	100.0	-	100.0	-

APPENDIX II - CHEMICAL RESULTS

Milligrammes per litre, averages of results

Water (continued) Quality (continued)

1964

Well	No. of samples	Ammonia Nitrogen	Albuminoid Nitrogen	Nitrate Nitrogen	Oxygen absorbed in 4 hrs at 27°C.	Hardness Total (non-carb)	Hardness (non-carb)	Chlorides as Chlorine	pH value	Natural Fluoride as Fluorine	Conductivity reciprocal megohms
<u>Met. Water Board</u>											
Darenth	4	0.003	0.019	5.1	0.08	272	40	18	7.3	0.2	490
Dartford	4	0.005	0.022	4.9	0.08	278	48	19	7.3	0.15	510
Eynsford	8	0.001	0.018	4.2	0.08	260	28	16	7.3	0.2	470
Green St Green	8	0.006	0.022	6.3	0.08	282	30	17	7.2	0.1	500
Horton Kirby	8	0.003	0.022	4.8	0.04	264	40	19	7.3	0.15	480
Lullingstone	8	0.005	0.014	4.0	0.09	254	24	15	7.3	0.15	450
Southfleet	4	0.005	0.025	6.6	0.06	300	36	18	7.2	0.15	530
Wilmington	6	0.010	0.031	8.3	0.12	288	50	24	7.2	0.15	550
<u>Medway Water Board</u>											
Fawkham Pumping Stn	4	0.000	0.000	5.3	0.12 *	287	38	19	7.2	-	542
<u>Mid Kent Water Co</u>											
Hartley Pumping Stn	3	0.000	0.000	5.6	0.00	260	35	15	7.2	-	477
<u>Private Supply</u>											
Lullingstone Estate	None	-	-	-	-	-	-	-	-	-	-

* Fawkham Pumping Station oxygen absorbed 3 hours at 37°C. - = not estimated

APPENDIX II - CHEMICAL RESULTS

Milligrams per litre, averages of results
Water (continued) Quality (continued)

1965

Well	No. of samples	Ammonia Nitrogen	Albuminoid Nitrogen	Nitrate Nitrogen	Oxygen absorbed in 4 hrs at 27°C.	Hardness Total	Hardness (non-carb)	Chlorides as Chlorine	pH value	Natural Fluoride as Fluorine	Conductivity reciprocal megohms
<u>Met. Water Board</u>											
Darenth	4	0.005	0.024	5.0	0.16	266	34	21	7.2	0.2	480
Dartford	4	0.008	0.035	4.0	0.14	274	52	22	7.2	0.15	500
Eynsford	8	0.003	0.023	3.6	0.12	258	24	17	7.2	0.2	460
Green St Green	7	0.006	0.022	5.3	0.12	276	24	19	7.1	0.1	500
Horton Kirby	8	0.008	0.026	4.5	0.12	272	44	21	7.2	0.15	480
Lullingstone	8	0.007	0.021	3.1	0.08	250	24	15	7.2	0.15	440
Southfleet	4	0.005	0.025	6.1	0.08	300	34	19	7.2	0.15	530
Wilmington	4	0.020	0.025	6.9	0.14	290	56	25	7.2	0.15	540
<u>Medway Water Board</u>											
Fawkham Pumping Stn	1	0.000	0.000	5.0	0.08*	292	45	21	7.3	-	525
<u>Mid Kent Water Co.</u>											
Hartley Pumping Stn	1	0.000	0.000	6.5	0.00	280	45	14	7.2	-	470
<u>Private Supply</u>											
Lullingstone Est.	1	0.013	0.04	not detected	0.44	276	51	31	7.3	-	-

* Fawkham Pumping Station oxygen absorbed 3 hours at 37°C.

- = not estimated

APPENDIX II - WATER (continued)
QUALITY (continued)

<u>Sampling by Hospitals</u>		<u>1964</u>		<u>1965</u>	
		<u>No. of samples</u>	<u>E.coli type 1</u>	<u>No. of samples</u>	<u>E.coli type 1</u>
Stone House	Treated water	10	None	1 36	1 None
Darenth Park	Raw water	7	None	6	None
	Treated water	39	None	48	None
Mabledon Hospital	Treated water	-	-	14	None

Sampling by Council's Public Health Inspectors

Lullingstone	Treated water	1 1 6	1 9 None	5 - -	None - -
Darenth Wood Farm	Rainwater	1	180+	-	-
Ayres Nursery Well	Clement Street	2	None	1	None
Laundry well, Wilmington	(also 1 dwelling)	1	None	1	None
Brands Hatch Circuit	(Bore hole - West Kingsdown)	2	None	1	None

Nine samples were taken from premises following complaints and all were found to be free from E.coli type 1 in 100 ml.

SWIMMING POOLS

In 1964 there were 4 pools in this district, 3 were provided by private enterprise and one by the Education Committee at their Special School at Hextable.

In 1965 an additional pool was provided by the parents at Longfield County Primary School.

The private enterprise pools and that of Hextable Special School are on continuous circulation, filtration and chlorination. The Longfield County Primary School is on continuous circulation and filtration but is on hand chlorination.

Neither of the pools at the two schools was in use in 1964.

With continuous circulation, filtration and chlorination, the bacteriological standard aimed at is, that no sample should contain any coliforms in 100 ml. of water; that in 75 per cent of the samples, the plate count should not exceed 10 colonies and that in the remainder the count should not exceed 100 colonies.

ADDENDUM

		<u>1964</u>		<u>1965</u>	
		<u>No. of samples</u>	<u>Coliforms</u>	<u>No. of samples</u>	<u>Coliforms</u>
Lullingstone Estate					
Treated water		4	0	2	0
		1	2+	1	1
		1	16	1	9
		1	2		
		1	18+		

APPENDIX II - WATER (continued)

QUALITY (continued)

Swimming Pools (continued)Sampling results

Source		Probable numbers per 100 ml				Plate count per ml.	
		Coliforms		E.coli		24 hr. 37°C.	
		<u>1964</u>	<u>1965</u>	<u>1964</u>	<u>1965</u>	<u>1964</u>	<u>1965</u>
Pool A	Shallow end	0	1	0	0	12	3
	Deep end	0		0		uncountable	
	Shallow end	0		0		1	
	Deep end	0		0		0	
	Shallow end	2 or more		1		0	
	Deep end	0		0		25	
	Shallow end	0		0		1	
	Deep end	0		0		3	
	Shallow end	1		0		5	
	Deep end	0		0		4	
	Shallow end	2 or more	0	2 or more	0	uncountable	0
	Deep end	2 or more	0	2 or more	0	uncountable	2
Pool B	Shallow end	0	0	0	0	0	6
	Deep end	0	0	0	0	0	20
	Shallow end	0		0		2	
	Deep end	0		0		50	
	Shallow end	0		0		0	
	Deep end	0		0		1	
	Shallow end	0		0		2	
	Deep end	0		0		1	
	Shallow end	2 or more	0	2 or more	0	uncountable	4
	Deep end	2 or more	0	2 or more	0	uncountable	2
	Shallow end	2 or more		1		uncountable	
	Deep end	0		0		8	
Pool C	Shallow end	1		0		uncountable	
	Deep end	1		1		uncountable	
	Shallow end	0		0		22	
	Deep end	0		0		12	
	Shallow end	0		0		uncountable	
	Deep end	1		1		uncountable	
	Shallow end	2 or more		2 or more		uncountable	
	Deep end	2 or more		2 or more		uncountable	
	Shallow end	0		0		uncountable	
	Deep end	1		0		uncountable	
	Shallow end	0		0		0	
	Deep end	0		0		0	
Pool D	Shallow end	0		0		0	
	Deep end	0		0		0	
	Shallow end	0		0		0	
	Deep end	0		0		0	
	Shallow end	0		0		0	
	Deep end	0		0		0	
	Shallow end	0		0		0	
	Deep end	0		0		0	
	Shallow end	0		0		0	
	Deep end	0		0		0	
	Shallow end	0		0		0	
	Deep end	0		0		0	
Pool E	Shallow end	0		0		0	
	Deep end	0		0		0	
	Shallow end	0		0		0	
	Deep end	0		0		0	

APPENDIX III - DRAINAGE

In 1965 of the 223 dwellings built by the Council, 221 were connected to the sewer and 2 to cesspools. Of the 495 dwellings built by private enterprise 479 were connected to the sewer and 16 to cesspools. We have no precise figures for 1964.

The following are the details of the work initiated by the Council's Public Health Inspectors:

	1964	1965
Pail closets abolished and property connected to sewer	1	-
Cesspools abolished and property connected to sewer	289	221
Drainage relaid	-	-
Covers renewed to inspection chambers and cesspools	4	1
Drains repaired	13	7
Water tests applied to drains	301	216
Smoke tests applied to drains	3	2

We have now no reliable precise figures for the various ways in which the houses of this district are drained. However, approximations may be useful and the following refer to the end of March 1966.

Dwellings with water closets draining into the sewer	14337
Dwellings with water closets draining into septic tanks	180
Dwellings with water closets draining into cesspools being emptied	1520
Dwellings with water closets draining into cesspools not being emptied	1000
Dwellings with chemical closets	20
Total	<u>17057</u>

HARTLEY/LONGFIELD/NEW BARN SEWERAGE SCHEME: Work continued on the laying of the sewer during 1964 and was eventually completed in 1965. In 1966 work was still in progress in connecting properties to the sewer.

WEST KINGSDOWN SEWERAGE SCHEME: During 1965 work commenced on laying the sewer to serve West Kingsdown and by the end of the year 60 properties (which figure is included above) had been connected to the sewer.

STONE OUTFALL WORKS: Drainage from the Parish of Stone and a portion of Swanscombe U.D. continues to these works but owing to the limited treatment the effluent cannot be good. There are plans for treatment elsewhere but in the meantime, owing to the smallness of the flow, the resultant pollution of the River Thames although undesirable, must be minute. The following summarise the analyses of the effluent:

	Averages in parts per million			
	1963	1963	1964	1965
Suspended matter	73	95	39	57
Albuminoid nitrogen	9	8	8	9
Oxygen absorbed 4 hrs 27°C	43	53	39	46
Therefore impurity figure (approx)	78	76	69	78
Oxygen absorbed 5 days 20°C (B.O.D.)	397	292	266	317
Samples	10	2	5	12
Laboratory analysing	P.L.A.	W.K.S.B.	P.L.A.	P.L.A.

Standards vary with local circumstances. Above Crossness, effluents into the R.Thames should have no more than 30 p.p.m suspended matter and 20 p.p.m B.O.D. but below Crossness less exacting standards are applied, especially to small effluents. Below Long Reach the P.L.A. hitherto asked for the following limits:

Albuminoid ammonia (almost same as Albuminoid nitrogen) 7 p.p.m
 Oxygen absorbed 3 hrs at 37°C (almost same as Oxygen absorbed 4 hrs 27°C)
 70 p.p.m i.e. impurity figure of 70.

APPENDIX IV - FOOD HYGIENE

FOOD PREPARATION. The number of inspections made in 1964 and 1965 were 325 and 267 respectively. 19 and 36 informal notices were issued to secure compliance with the Food Hygiene Regulations. The following defects were remedied:-

	<u>1964</u>	<u>1965</u>
Wash-hand basins provided	-	2
Sinks for washing equipment	1	-
Hot water supply provided	3	1
Locker accommodation for employees clothes	-	2
First Aid equipment provided	4	10
Cleanliness and repair of food rooms	7	18
Sanitary accommodation labelled	5	5
Miscellaneous repairs	6	9

REGISTERED PREMISES. Regulations require this Council to register distributors of milk, i.e. dairymen other than dairy farmers.

	<u>1961</u>	<u>1962</u>	<u>1963</u>	<u>1964</u>	<u>1965</u>
Total number of distributors on register	33	38	46	53	60

The Food and Drugs Act, 1955 requires certain premises to be registered. Those registered were as follows:-

	<u>1964</u>	<u>1965</u>	<u>Total registered</u>	
	<u>1964</u>	<u>1965</u>	<u>1964</u>	<u>1965</u>
Sausage making and cooked meats	2	1	14	15
Storage and sale of ice-cream	3	5	153	158
Manufacture and sale of ice-cream	-	-	-	-
Cooking of ham	1	5	1	6

MEAT INSPECTION. The remaining slaughterhouse of this district, namely that at the farm of Stone House Hospital was closed during 1963. In 1964 and 1965 there was therefore, no slaughterhouse licensed in this district and no meat inspection was carried out by the Council's Public Health Inspectors.

The number of slaughtermen licensed by the Council was as follows:-

<u>1964</u>	<u>1965</u>
9	9

SURRENDER OF UNSOUND FOOD. The amount of unsound food surrendered was:-

<u>1964</u>	<u>Meat</u>	<u>Other foods</u>
	1568 lbs beef	220 lbs cheese
	236 lbs pork	24 packets frozen food
	4 legs of pork	9869 tins of various foods
	9 prs legs of mutton	
	19 lbs bacon	
	4 lbs ham	
<u>1965</u>	195 lbs pork	1968 packets frozen food
	5 legs of pork	9988 tins of various foods
	3 lbs mutton	
	20 lbs sheeps' hearts	
	65 lbs bacon	
	153 chickens	
	3653 lbs beef	
	1 forequarter of beef	
	1 x 6 lb tin corned beef	

APPENDIX IV - FOOD HYGIENE (continued)

FOOD UNFIT FOR CONSUMPTION EXPOSED FOR SALE. The items of food subject to complaint to this office by customers were:-

	<u>1964</u>	<u>1965</u>
Sugar	1	1
Soiled dough	1	1
Moulds	4	-
Moth larvae	-	1
Milk bottles	3	2

Most were transferred to the Kent County Council for submission to the Public Analyst and for action to be taken by them. Action taken resulted as follows:-

1964

Sliced loaf	Soiled dough	Complainant recompensed
Small wrapped loaves	Mould growth	£25 fine plus £7. 7. 0. costs
Sliced white bread	Mould growth	Bakery company cautioned
Crumpets	Mould growth	Retailer and bakery company cautioned
Steak & Kidney Pie	Mould growth	Retailer and manufacturer cautioned
Three milk bottles	Unclean	Dairy Company cautioned

1965

Stained cube sugar	Oil and iron	Explanation accepted
Sliced loaf	Soiled dough	Company cautioned
Self Raising flour	Larvae of moth	Caution
Two milk bottles	Unclean	Caution

LABORATORY EXAMINATIONS

Ice-cream. The following results were obtained from the methylene blue tests.

	<u>1964</u>	<u>1965</u>
Grade I	9	10
II	4	8
III	2	1
IV	<u>1</u>	<u>1</u>
Total samples	<u>16</u>	<u>20</u>

Milk. Milks sampled for designation tests by Food and Drugs Authority were:

	<u>Satisfactory</u>		<u>Unsatisfactory</u>		<u>Void</u>	
	<u>1964</u>	<u>1965</u>	<u>1964</u>	<u>1965</u>	<u>1964</u>	<u>1965</u>
Pasteurised Milk	39	59	-	-	3	-
Raw Milk	-	-	-	-	-	-
Sterilized Milk	-	-	-	-	-	-

Meat. Specimens submitted to the Hospital Laboratory were reported on as follows:

<u>1964</u>	None
<u>1965</u>	Pig: Aged one year. Lymph node. Culture: Haemolytic streptococci (+)

N O T E

(A) The section of the Food and Drugs Act concerned with fitness of food is different from the section concerned with quality. Nevertheless, unfit food may be dealt with under the Act as food of poor quality.

For clarification of the public health aspect, affairs related to the fitness of food are placed in the appendix FOOD HYGIENE irrespective of the section under which action may have been taken.

Those referring to the quality are placed in the appendix FOOD CONTENT.

This distinction is desirable, whereas unfit food may cause loss of health, poor quality food may only cause loss of money.

Examples - Unfit food (food hygiene): lead in cider

Bad quality food (food content): water in milk

(B) Six farms hold milk producers licenses. Two surveys by milk samples for tuberculosis and brucellosis were carried out by the County and Public Health Laboratory from 1958 to 1963 with only negative results. No further sampling for this purpose in 1964 or 1965.

APPENDIX V - FOOD CONTENT

SAMPLING

Details of samples taken by the County Sampling Officers within the Dartford District during 1964 and 1965 were as follows. The samples were taken by the County as this Rural District is not a Food and Drugs Authority.

<u>Summary</u>	<u>1964</u>	<u>1965</u>
Milk	51	50
Drugs	14	15
Spirits	10	10
Other samples	85	78
	<u>160</u>	<u>153</u>

Of the 160 samples taken in 1964 for analysis and the 153 in 1965, all were satisfactory with the exception of :-

<u>Sample</u>	<u>Analysis</u>	<u>Action taken</u>
	<u>1964</u>	
<u>Food</u> Milk	10% deficiency in fat	Follow-up samples satisfactory
Iced sponge cake	Foreign material in cream filling (burnt cake)	Complainant recompensed
	<u>1965</u>	
Buttered ginger	Butter fat content below agreed minimum of 4%	Follow-up sample satisfactory
Buttered truffles with real Jamaica rum		
Garden peas (canned)	Irregularity concerning presence of dye	Caution
	<u>1964</u>	
<u>Drugs</u> Tincture of Iodine	Ingredients exceeded Brit. Pharmacopoeia requirements	Retailer cautioned
Foot ointment	Salicylic acid lower than formula	Manufacturer notified
	<u>1965</u>	
Diarrhoea mixture	Deficiency of sodium bicarbonate and calcium carbonate found	Stocks withdrawn

CUSTOMERS' COMPLAINTS

Samples were brought to the Dartford Rural District Office and transmitted to the Food and Drugs Authority. The result of the action taken was as follows:

Sliced white loaf	Piece of wire	£50 plus £5. 5. 0. costs
Tea	Excessive dust	Blenders informed
White loaf	Flour bag label	No action

APPENDIX VI - RADIOACTIVITY

It is desirable for those concerned with public health to keep contact with this subject to diminish its perplexities. For this reason measurements from the national and county survey are given here. Radioactivity of food has been kept under observation by the Medical Research Council and by the Agricultural Research Council since the 1958 and subsequent bomb tests and resultant fall-out made this necessary.

The radioactivity found has been well below amounts worth consideration for harmful effects. Furthermore, the major part of the fall-out from the testing of weapons in the last decade has reached the earth's surface and contamination of food is now decreasing.

Strontium 90 (beta ray). Half life = 20 years, Retained in bone tissue: The radioactivity of rain is representative of the fall-out which in due course will contaminate the diet. Radioactivity of milk is representative of the general diet. Strontium 90 is deposited in bone and were it to reach a level immensely greater than at present, its radiation to compact bone could cause bone tumour and that to bone marrow could cause leukaemia. The following figures are from the A.R.C. Research Laboratory report No.16.

	<u>Deposition Sr.90 mCi/km²</u>							
	1958	1959	1960	1961	1962	1963	1964	1965
Annual deposit	5	8	2	2	11	19	15	6
Cumulative deposit	15	23	24	26	35	53	67	71
	<u>Intake of Sr.90 pCi/day</u>							
	1958	1959	1960	1961	1962	1963	1964	1965
Total diet	6	10	7	7	11	25	29	19
	<u>Mean Strontium 90 values (pCi/g.Ca)</u>							
	1958	1959	1960	1961	1962	1963	1964	1965
Total diet	6	9	6	6	10	23	26	18
Milk	7	10	6	6	12	26	28	19

Strontium 90 in samples of human bone should presumably show a trend similar to that of cumulative deposit shown above, i.e. diminution of rate of increase in all but the very young and in the latter a downward trend. The following figures are from monitoring report No.12.

	<u>Mean Strontium 90 values (pCi/g.Ca)</u>		
	Jan-Dec 1963	Jan-Dec 1964	Jan-June 1965
New born	2.1	3.0	2.6
2w - 4y	4.5	7.0	7.0
5 - 19y	1.5	2.3	2.7
20y +	0.5	0.5	1.3

Caesium 137 (beta ray) permeates soft tissues including gonads. Half life 33 years, excreted in about 4 months: Caesium 137 degenerates to barium 137 which degenerates at once emitting gamma rays from which whole body measurement of the intake of Caesium 137 is possible. Because it is excreted relatively quickly, the dose rate within the body diminishes more rapidly than that of Sr.90 when fall-out is lessened. Milk and meat are the main sources of Caesium 137 in the diet. The measurements of the A.R.C. Research Laboratory show the trend to be similar to that of Sr.90.

Iodine 131 (beta ray) permeates thyroid gland. Half life 8 days: Because of its short life Iodine 131 need only be kept under observation for a short period after weapon trials. Weapon tests were carried out in 1961 and 1962 but in 1963 and subsequently no Iodine 131 has been detected except for an unmeasurable trace after the Chinese tests of 1964 and 1965.

APPENDIX VI - RADIOACTIVITY (continued)

RADIOACTIVITY OF FOODSTUFFS IN KENT

The following is from reports by the County Analyst:

With the suspension of the large scale testing of atomic weapons in the atmosphere, the amount of contamination has now fallen to a level similar to that which existed prior to the atomic weapons test programme resumed in the Autumn of 1962. As predicted, the level of Strontium 90 increased temporarily in the Spring of 1964 due to the annual cycle of the weather and crops and a similar rise but of shorter duration occurred in the Spring of 1965.

In view of this decrease in the amount of radioactive contamination, this survey recently has been limited to milk only - justified on the ground that two-thirds of the Strontium 90 in our diet is contributed by milk and other dairy products.

The significance of the level of Strontium 90 in milk may be assessed by comparison with the "working levels" recommended by the Medical Research Council of 400 Strontium Units in the diet of individuals and of 130 Strontium Units in the diet of the population as a whole. On this basis the amount of artificial radioactivity found at present is of no danger and represents less than one tenth of that due to naturally occurring radioactive substances.

Strontium 90 in Milk - Monthly Composite Samples

1962 - 1965

Month	Number of samples				Strontium 90							
	Year	Year	Year	Year	pCi/litre*				pCi/g.Ca*			
	1962	1963	1964	1965	1962	1963	1964	1965	1962	1963	1964	1965
Jan	125	88	99	83	4.6	10.3	29.7	26.2	4.0	8.5	25.6	21.9
Feb	105	143	136	112	5.2	9.8	31.0	26.8	4.4	8.4	27.0	22.3
Mch	112	160	94	80	4.7	11.0	38.0	38.4	4.0	9.6	32.5	32.6
Apl	81	64	122	74	7.0	15.5	30.8	23.8	5.8	13.4	26.3	22.5
May	107	169	94	83	9.7	25.0	32.6	17.4	8.6	21.6	28.6	15.5
June	80	84	118	42	9.1	28.0	34.5	15.1	8.2	24.5	30.0	12.2
June	103	100	120	110	11.7	35.5	28.8	16.8	10.4	31.0	25.5	15.4
Aug	65	62	96	86	15.9	34.4	22.4	13.5	14.6	32.8	18.8	12.4
Sept	106	54	85	81	15.4	32.5	21.8	13.3	13.6	27.6	17.9	11.2
Oct	95	146	81	80	14.9	28.1	21.4	12.1	13.0	24.0	16.9	10.3
Nov	120	123	93	66	14.4	36.4	22.4	14.1	12.5	31.4	19.0	11.8
Dec	64	87	38	36	12.3	34.3	27.1	17.8	10.4	29.6	21.3	15.1

INDUSTRY

In accordance with the Radioactive Substances Act, 1960, one firm was registered by the Ministry in 1964 for one source of Caesium 137 not exceeding 2 millicuries. This was for providing a beam for operating mechanical equipment.

There was no registration in 1965.

* pCi = picocurie. pCi/g.Ca = Strontium Unit = picocurie Sr.90 per gramme calcium

AIR HYGIENE
DEPOSIT GAUGE READINGS

Tons per square mile

Month	Dissolved matter			Undissolved matter			Total solids			Dust from cement wks			Dust from other sources		
	'63	'64	'65	'63	'64	'65	'63	'64	'65	'63	'64	'65	'63	'64	'65
WHITE OAK															
Jan	15	8	6	7	6	4	22	14	10	8	3	2	14	11	8
Feb	10	7	6	16	9	7	26	16	13	6	4	4	20	12	9
Mch	6	7	8	7	9	7	12	16	15	1	4	0	11	12	15
Apl	7	6	7	6	10	15	13	16	22	4	3	0	9	13	22
May	6	7	3	7	10	14	13	17	17	3	2	0	10	15	17
June	6	5	6	6	5	6	12	10	12	3	2	3	9	8	9
July	5	3	6	4	8	10	9	11	16	2	1	2	7	10	14
Aug	6	5	3	5	7	5	11	12	9	1	3	2	10	9	7
Sept	8	4	10	4	5	5	12	10	15	4	3	0	8	7	15
Oct	6	8	5	3	22	5	10	30	10	1	0	4	9	30	6
Nov	6	7	8	3	6	7	9	13	15	0	3	4	9	10	11
Dec	8	6	5	4	4	5	12	10	10	3	3	0	9	7	10
BOW ARROW										36	31	21	125	144	143
Jan	29	18	10	9	13	7	38	32	17	28	18	5	10	14	12
Feb	12	17	14	7	17	15	19	34	29	12	14	13	7	20	16
Mch	-	18	16	-	22	13	-	40	30	-	13	12	-	27	18
Apl	20	13	21	21	13	16	41	26	37	30	5	15	11	21	22
May	11	16	7	9	19	6	20	35	13	10	14	2	10	21	11
June	14	18	13	15	17	19	29	35	32	18	11	11	11	24	21
July	14	7	15	22	14	14	36	21	29	30	4	9	6	17	20
Aug	12	10	15	12	20	13	24	30	28	12	11	10	12	19	18
Sept	19	10	10	37	23	11	56	33	21	33	9	1	23	24	20
Oct	9	17	21	7	19	20	16	36	41	8	16	23	8	20	18
Nov	12	15	26	6	10	19	18	25	46	5	12	25	13	13	21
Dec	17	15	9	13	13	9	30	28	18	18	14	2	12	14	16
DARTFORD CENTRAL										204+	141	128	123	234	213
Jan	19	14	9	8	11	10	27	25	19	14	12	3	13	23	16
Feb	15	13	10	17	13	12	32	27	22	15	9	8	17	18	14
Mch	8	15	11	6	13	9	14	28	21	4	9	6	10	19	15
Apl	18	9	14	15	10	12	33	19	26	22	3	8	11	16	16
May	13	12	5	5	12	7	18	24	12	7	7	0	11	17	12
June	12	14	12	6	9	8	17	23	20	11	5	8	6	18	12
July	10	5	11	11	11	8	21	16	19	15	2	4	6	14	15
Aug	10	9	12	10	8	8	20	17	20	7	6	5	13	11	15
Sept	10	8	7	15	14	8	25	22	15	16	10	2	9	12	13
Oct	7	13	17	6	10	8	13	23	25	6	8	15	7	15	10
Nov	8	12	16	6	8	12	14	20	28	3	9	13	11	11	15
Dec	11	12	7	9	9	7	20	22	13	9	8	0	11	14	13
JOYCE GREEN										129	88	72	125	188	166
Jan	-	17	9	-	15	5	-	32	14	-	17	5	-	15	9
Feb	-	19	9	-	18	5	-	35	14	-	20	6	-	15	8
Mch	9	17	14	15	17	7	24	34	21	0	12	12	24	22	9
Apl	11	10	17	9	11	17	20	21	34	10	5	2	10	16	32
May	-	14	5	-	17	5	-	32	10	-	8	2	-	24	8
June	12	14	10	13	13	7	25	27	17	9	7	6	14	20	11
July	13	7	10	19	12	9	33	19	20	15	3	6	18	16	14
Aug	15	9	8	12	10	6	27	19	13	8	7	6	19	12	7
Sept	17	10	7	11	13	10	28	23	17	19	10	1	9	13	16
Oct	10	22	20	11	14	37	21	36	57	10	10	14	11	26	43
Nov	16	14	22	20	9	18	36	24	41	9	10	14	25	14	27
Dec	14	6	7	11	7	6	26	13	13	16	5	0	10	8	13
											114	74		193	197

AIR HYGIENE (continued)

DEPOSIT GAUGE READINGS (continued)

Month	Dissolved matter			Undissolved matter			Total solids			Dust from cement wks			Dust from other sources		
	'63	'64	'65	'63	'64	'65	'63	'64	'65	'63	'64	'65	'63	'64	'65
HORNS CROSS															
Jan	-	35	25		36	11	-	71	36	-	55	29	-	16	7
Feb	34	33	35	30	22	1	64	55	36	60	39	34	4	16	2
Mch	27	32	28	20	18	6	47	50	34	36	40	33	11	10	1
Apl	24	35	38	15	30	84	39	66	122	33	48	51	6	18	71
May	22	23	15	20	15	39	41	38	54	37	34	25	4	4	29
June	23	24	22	22	11	27	45	35	49	38	26	34	7	9	15
July	14	9	18	29	13	19	43	22	37	39	6	27	4	16	10
Aug	17	16	12	15	65	15	32	81	27	21	58	20	11	23	7
Sept	27	11	25	25	13	15	52	23	40	49	14	24	3	9	16
Oct	18	34	11	23	38	26	41	72	37	32	43	16	9	29	21
Nov	19	45	54	13	33	35	32	78	89	20	67	65	12	11	24
Dec	29	44	27	31	24	14	60	68	42	54	66	18	6	2	24
SWANSCOMBE										419+	496	376	77	163	227
Jan	37	29	13	25	23	8	62	52	22	46	43	17	16	9	5
Feb	21	26	18	24	22	21	45	47	39	36	30	28	9	17	11
Mch	18	24	23	11	19	25	29	43	48	20	27	31	9	16	17
Apl	19	16	31	17	15	38	36	31	69	27	16	38	9	15	31
May	18	19	14	16	32	17	34	51	32	25	28	17	9	23	15
June	19	27	-	17	16	-	36	43	68	27	23	18	9	20	50
July	14	14	17	23	23	12	37	37	29	22	6	17	15	31	12
Aug	17	12	22	12	18	26	29	30	48	19	18	27	10	12	21
Sept	21	17	20	23	21	10	44	38	30	36	25	21	8	13	11
Oct	19	32	20	15	25	16	34	58	36	28	43	24	6	15	12
Nov	19	28	39	12	19	23	31	47	62	19	39	46	19	8	16
Dec	24	31	26	22	20	12	46	51	38	41	36	26	5	15	12
NORTHFLEET										346	334	310	124	194	213
Jan	27	27	20	12	25	16	39	52	36	34	38	25	5	14	11
Feb	18	23	17	27	27	15	45	50	32	36	24	22	9	26	10
Mch	20	19	20	17	24	17	37	43	38	27	19	24	10	24	14
Apl	18	12	28	17	9	25	35	21	53	30	9	32	5	12	21
May	13	17	13	14	12	13	27	29	26	24	13	13	3	16	13
June	15	20	15	15	15	11	30	35	26	24	12	13	6	23	13
July	13	10	14	11	14	10	24	24	24	20	11	9	4	13	15
Aug	20	12	17	16	25	19	36	37	37	24	19	23	12	18	14
Sept	18	12	19	16	14	11	34	26	30	26	14	14	8	12	16
Oct	17	24	19	21	21	11	38	45	30	26	26	18	12	19	12
Nov	16	25	40	8	16	24	24	41	64	13	34	36	11	7	28
Dec	20	21	-	19	19	-	40	40	-	32	28	-	8	12	-
										316	247	229+	93	196	167

TREND

Sum of Horns Cross, Swanscombe and Northfleet readings. i.e. "tons per 3 sq miles"

Month	Dust from cement wks			Dust from elsewhere			Total solids			% Dust from cement works		
	'63	'64	'65	'63	'64	'65	'63	'64	'65	'63	'64	'65
Jan	-	136	71	-	39	23	101	175	94	-	78	76
Feb	132	93	84	22	59	23	154	152	107	85	61	78
Mch	83	86	88	30	30	32	113	116	120	73	74	73
Apl	92	73	121	18	45	123	110	118	244	84	62	50
May	86	75	55	16	43	57	102	118	112	84	64	49
June	89	61	65	22	52	78	111	113	143	80	54	45
July	81	23	53	23	60	37	104	83	90	77	28	59
Aug	64	95	70	33	53	42	97	148	112	66	64	62
Sept	111	53	59	19	24	41	130	87	100	85	61	59
Oct	86	112	55	27	63	48	113	175	103	76	64	53
Nov	52	140	147	35	26	68	87	166	215	60	84	68
Dec	127	130	-	19	29	-	146	159	-	87	82	-
1003+1077 868+ 264 523 572+												

AIR HYGIENE (continued)

DEPOSIT GAUGE READINGS

Month	% Dust from cement works		
	1963	1964	1965
<u>WHITE OAK</u>			
Jan	36	23	18
Feb	23	26	30
Mch	8	26	1
Apl	31	16	0
May	23	10	0
June	25	16	23
July	22	7	12
Aug	9	25	19
Sept	33	30	0
Oct	10	0	42
Nov	0	20	28
Dec	25	30	1
<u>BOW ARROW</u>	274	229	174
Jan	74	55	27
Feb	33	42	45
Mch		33	39
Apl	73	19	39
May	50	39	18
June	62	32	35
July	84	20	31
Aug	50	35	35
Sept	58	28	4
Oct	50	45	56
Nov	28	48	54
Dec	60	50	13
	622+	446	396
<u>DARTFORD CENTRAL</u>			
Jan	52	47	15
Feb	47	35	34
Mch	29	34	27
Apl	67	15	31
May	38	29	3
June	64	20	39
July	72	11	18
Aug	35	33	23
Sept	64	43	12
Oct	46	36	59
Nov	22	46	47
Dec	45	38	0
	581	387	308
<u>JOYCE GREEN</u>			
Jan	-	52	35
Feb	-	57	45
Mch	0	38	57
Apl	50	22	5
May	-	26	19
June	36	24	37
July	45	17	29
Aug	30	39	45
Sept	68	43	5
Oct	47	28	25
Nov	25	40	39
Dec	62	36	0
		422	341

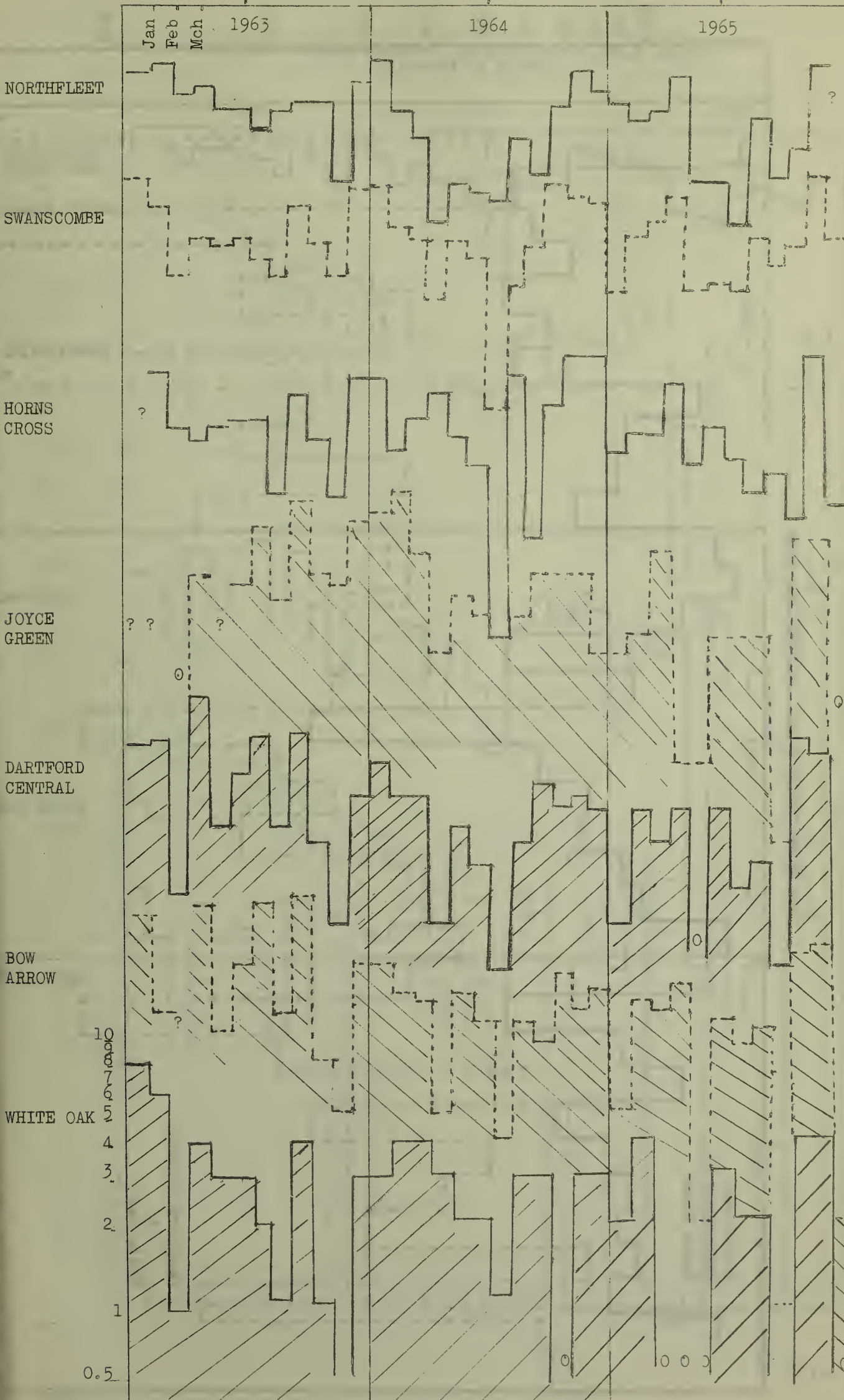
AIR HYGIENE (continued)
DEPOSIT GAUGE READINGS (continued)

Month	% Dust from cement works		
	1963	1964	1965
<u>HORNS CROSS</u>			
Jan		77	82
Feb	94	70	94
Mch	77	80	97
Apl	85	73	42
May	90	90	45
June	85	74	69
July	90	28	72
Aug	66	72	75
Sept	94	63	61
Oct	78	60	43
Nov	63	86	73
Dec	90	98	43
	912+	871	796
<u>SWANSCOMBE</u>			
Jan	74	83	79
Feb	80	63	72
Mch	69	63	64
Apl	75	53	54
May	74	55	55
June	75	54	27
July	59	17	59
Aug	66	61	55
Sept	82	65	72
Oct	83	75	67
Nov	61	83	74
Dec	89	72	69
	887	744	747
<u>NORTHFLEET</u>			
Jan	87	73	70
Feb	80	48	70
Mch	73	39	63
Apl	86	44	60
May	89	46	51
June	80	33	50
July	84	47	37
Aug	66	52	62
Sept	76	55	47
Oct	68	58	60
Nov	54	81	56
Dec	80	71	
	923	647	626+

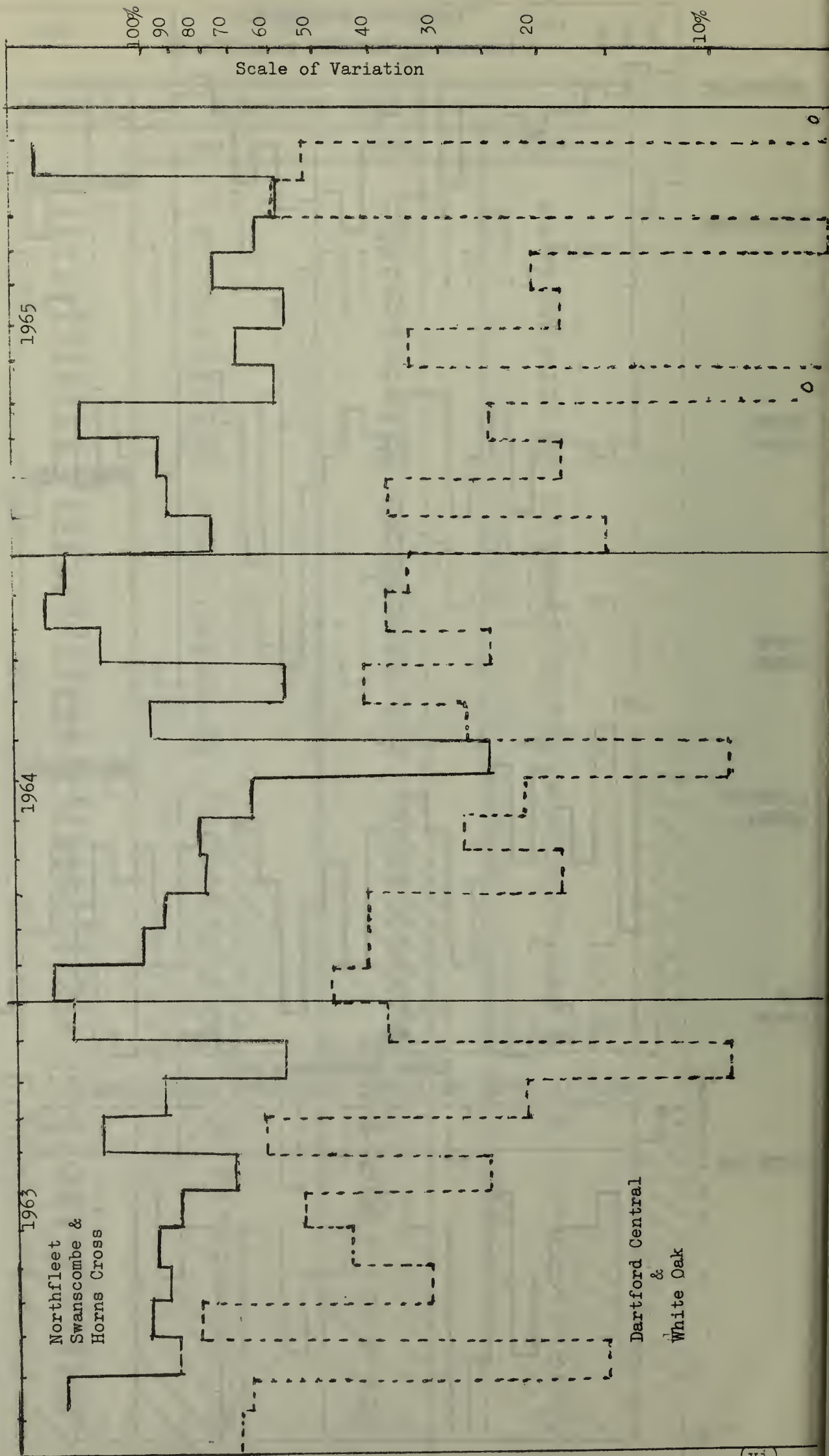
DUST FROM CEMENT WORKS
MONTHLY TOTALS OF DARTFORD CENTRAL AND WHITE OAK GAUGES

Month	1963	1964	1965
Jan	22	15	5
Feb	21	13	12
Mch	5	13	6
Apl	26	6	8
May	10	9	0
June	14	7	11
July	17	3	6
Aug	8	9	7
Sept	20	13	2
Oct	7	8	19
Nov	3	12	17
Dec	12	11	0
	165	119	93

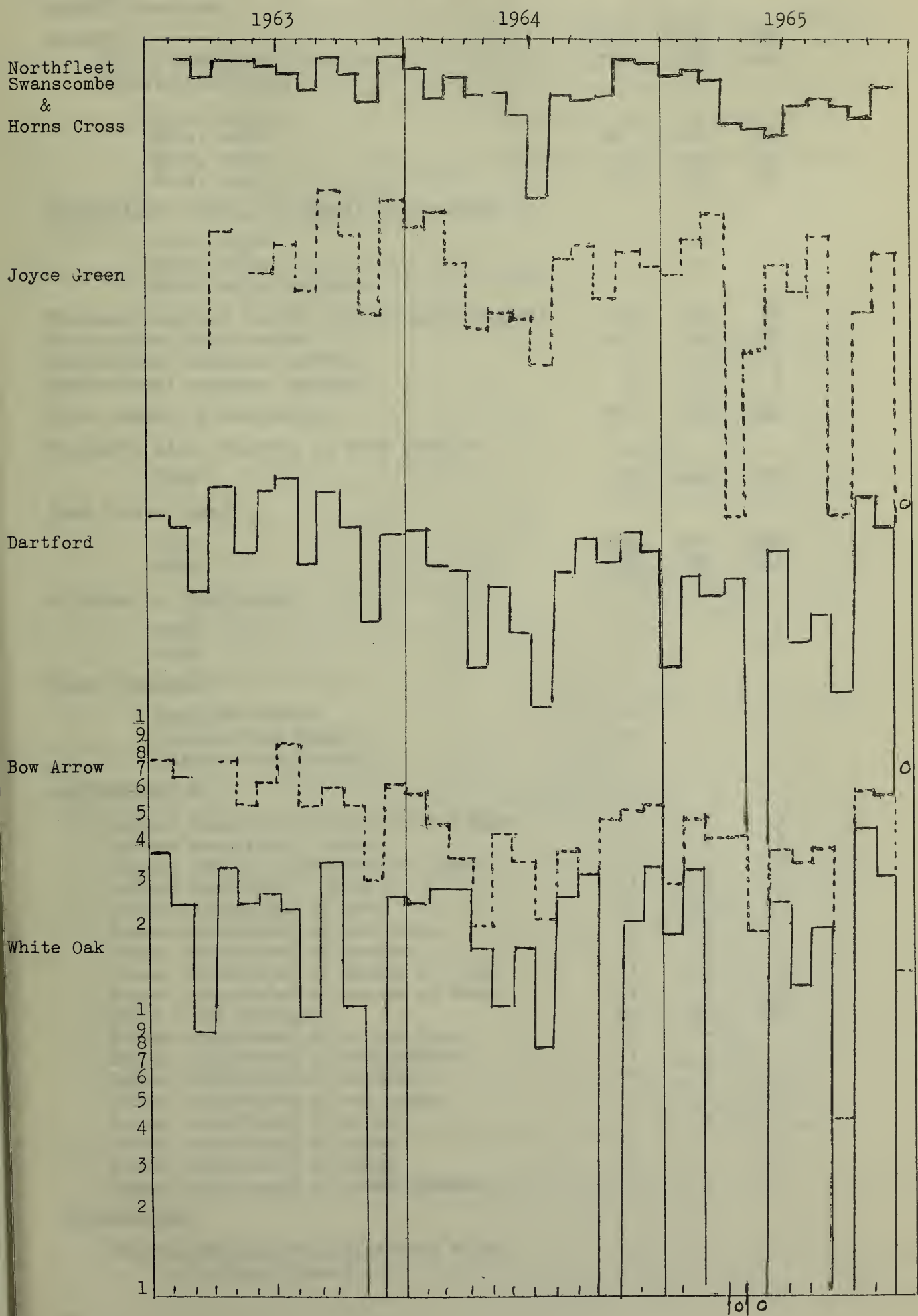
DUST FROM CEMENT WORKS. WEIGHT PER AREA



DUST FROM CEMENT WORKS. WEIGHT PER AREA



DUST FROM CEMENT WORKS - PERCENTAGE OF TOTAL SOLIDS



APPENDIX VIII RODENT CONTROL, DISINFECTION AND DISINFESTATION

The following is a summary of the work carried out by the Council's Rodent Operators:

RODENTS:	1963	1964	1965
No. of complaints received	300	386	416
Infestations found			
Rats, major	-	1	-
Rats, minor	267	214	307
Mice, major	-	-	-
Mice, minor	30	42	61
Infestations found as a result of a survey:			
Rats, major	-	-	-
Rats, minor	-	-	-
Mice, major and minor	-	-	-
Business premises treated (except agricultural)	45	70	65
Private dwellings treated	247	214	298
Agricultural premises surveyed	-	-	-
Agricultural premises treated	5	3	5
Total number of treatments:	297	317	368
Estimated kill, Ministry of Food formula:			
Rats	753	960	945
Dead bodies found:			
Rats	366	570	568
Mice	35	55	64
By traps or other means:			
Rats	-	-	1
Mice	-	-	-
Sewer treatment:			
Manholes tested	-	-	-
Infestations found	-	-	-
Infestations treated	-	-	-

DISINFESTATION:

Council houses disinfested of bed bugs	-	2	1
Private dwellings - ditto -	1	4	1
Council houses disinfested of fleas	-	-	2
Private dwellings - ditto -	1	1	1
Houses disinfested of ants	11	18	19
Houses disinfested of wood-worm	-	1	-
Houses disinfested of beetles	5	7	1
Houses disinfested of swarms of flies	3	3	3
Houses disinfested of swarms of bees	1	6	20
Wasps nests destroyed	94	33	184
Houses disinfested of silver fish	1	-	-
Houses disinfested of cockroaches	1	1	-
Houses disinfested of earwigs	5	1	1
Houses disinfested of red spider	-	-	2
Houses disinfested of moles	-	3	7
Houses disinfested of moths	-	-	-
Houses disinfested of frogs	-	-	-
Houses disinfested of other insects	1	3	-

DISINFECTION:

Houses, bedding etc, disinfected after infectious disease	-	-	-
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APPENDIX IX - PLACES OF WORK

FACTORIES:

Under the Factories Acts the district council enforces the following Sections: (a) Section 7 (sanitary conveniences) in all factories (b) Sections 1, 2, 3, 4, 6 (cleanliness, temperature, ventilation and drainage of floors) in all factories where mechanical power is not used.

The following work was carried out by the Council's Public Health Inspectors:

1. INSPECTIONS UNDER PART I, FACTORIES ACT, 1961.

	Number on register		Number of inspections		Number of written notices		Number of occupiers prosecuted	
	1964	1965	1964	1965	1964	1965	1964	1965
Premises								
i) Factories in which sections 1,2,3,4 & 6 are to be enforced by the Local Authority	9	9	2	-	-	-	-	-
ii) Factories not included in (i) in which S.7 is enforced by the Local Authority	115	111	47	19	13	6	-	-
iii) Other premises in which S.7 is enforced by Local Authority (excluding out-workers' premises)	27	27	-	-	-	-	-	-
Totals	151	147	49	19	13	6	-	-

2. PARTICULARS OF DEFECTS FOUND:

Particulars	Number of defects found		Defects remedied		Referred to H.M. Inspector		Referred by H.M. Inspector		Number of prosecutions	
	1964	1965	1964	1965	1964	1965	1964	1965	1964	1965
Section 1	-	-	-	-	-	-	-	-	-	-
Sections 2,3,4 & 6	-	-	-	-	-	-	-	-	-	-
Section 7 (Sanitary conveniences)										
(a) Insufficient	4	2	4	1	-	-	-	-	-	-
(b) Unsuitable or defective	9	7	9	2	-	-	9	2	-	-
(c) Not separate for the sexes	-	-	-	-	-	-	-	-	-	-
(d) Other offences against the acts (excluding out-workers)	-	2	-	-	-	2	-	-	-	-
Totals	13	11	13	3	-	2	9	2	-	-

APPENDIX IX - PLACES OF WORK (continued)

OUTWORKERS:

	1964	1965
(a) Total number of outworkers notified to the Council by firms in the Dartford Rural District under Section 110 (1c) Factories Act 1961.	52	60
(b) Total numbers of outworkers notified by Dartford Rural District Council to other Councils under Section 110 (2) Factories Act,1961	12	26
(c) Total number of outworkers notified to Dartford Rural District Council by other Councils under Section 110 (2)	35	37
(d) Total number of outworkers employed in Dartford Rural District	75	71
(e) Total number of inspections of work-places under Section 111 (i) Factories Act.1961	Nil	Nil
(f) Scheduled occupations followed by outworkers in Dartford Rural District		
Making wearing apparel	26	40
Making of boxes or other receptacles or parts thereof made wholly or partially of paper,cardboard,chip or similar material	28	25
Firework cases	6	6
Christmas crackers	1	-
Lampshades	14	-

SHOPS AND OFFICES:

On the 1st May,1964 Section 29 (2) 46 and 49 of the Offices,Shops and Railway Premises Act came into force. These sections deal with the registration of premises, applications for fire certificates and for exemption.

On the 1st August,1964 all other sections of the Act came into force with the exception of Sections 24-26 and 83(2) which relate to first aid and Section 79 which came into operation on 1st January,1965.

From May 1964 until the end of Dec.1965 the number of premises registered under the Act was as follows:

	1964	1965
Offices	58	59
Retail Shops	179	175
Wholesale shops and warehouses	10	10
Catering establishments open to the public, canteens	47	45
Fuel storage depôts	4	4

The total number of visits to the premises made by the Council's Public Health Inspectors during 1964 was ... 358.

During the year 1965 the number of premises which received a general inspection was 208 and the total number of visits of all kinds was ... 356.

Visits under the above Act are for enforcement of provisions in regard to cleanliness, overcrowding, temperature, ventilation, lighting, sanitary conveniences, washing facilities, supply of drinking water, accommodation for clothing, sitting facilities, seats for sedentary work, eating facilities, floors, passages and stairs, fencing of exposed parts of machinery and first aid.

